



774

SEQUENCE LISTING

- <110> Li, Li
Furtak, Kazarzyna
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Tchernev, Velizar T
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Spytek, Kimberly A
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Rastelli, Luca
Shenoy, Suresh G
Grosse, William M
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Lepley, Denise M
Gerlach, Valerie
Edinger, Schlomit
MacDougall, John R
Peyman, John A
Gunther, Erik
Stone, David J
Ellerman, Karen
Gangolli, Esha A
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Methods of Using the Same
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<210> 6

<211> 771

<212> PRT

<213> Homo sapiens

<400> 6

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Met Ala Pro Gly Pro Phe Ser Ser Ala Leu Leu Ser Pro Pro Pro Ala
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```

```

Ala Leu Pro Phe Leu Leu Leu Leu Trp Ala Gly Ala Ser Arg Gly Gln
      20                      25                      30

```

```

Pro Cys Pro Gly Arg Cys Ile Cys Gln Asn Val Ala Pro Thr Leu Thr
      35                      40                      45

```

```

Met Leu Cys Ala Lys Thr Gly Leu Leu Phe Val Pro Pro Ala Ile Asp
      50                      55                      60

```

```

Arg Arg Val Val Glu Leu Arg Leu Thr Asp Asn Phe Ile Ala Ala Val
      65                      70                      75                      80

```

```

Arg Arg Arg Asp Phe Ala Asn Met Thr Ser Leu Val His Leu Thr Leu
      85                      90                      95

```

Ser Arg Asn Thr Ile Gly Gln Val Ala Ala Gly Ala Phe Ala Asp Leu
 100 105 110

Arg Ala Leu Arg Ala Leu His Leu Asp Ser Asn Arg Leu Ala Glu Val
 115 120 125

Arg Gly Asp Gln Leu Arg Gly Leu Gly Asn Leu Arg His Leu Ile Leu
 130 135 140

Gly Asn Asn Gln Ile Arg Arg Val Glu Ser Ala Ala Phe Asp Ala Phe
 145 150 155 160

Leu Ser Thr Val Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu Ala
 165 170 175

Leu Pro Trp Glu Ala Val Gly Gln Met Val Asn Leu Asn Thr Leu Thr
 180 185 190

Leu Asp His Asn Leu Ile Asp His Ile Ala Glu Gly Thr Phe Val Gln
 195 200 205

Leu His Lys Leu Val Arg Leu Asp Met Thr Ser Asn Arg Leu His Lys
 210 215 220

Leu Pro Pro Asp Gly Leu Phe Leu Arg Ser Gln Gly Thr Gly Pro Lys
 225 230 235 240

Pro Pro Thr Pro Leu Thr Val Ser Phe Gly Gly Asn Pro Leu His Cys
 245 250 255

Asn Cys Glu Leu Leu Trp Leu Arg Arg Leu Thr Arg Glu Asp Asp Leu
 260 265 270

Glu Thr Cys Ala Thr Pro Glu His Leu Thr Asp Arg Tyr Phe Trp Ser
 275 280 285

Ile Pro Glu Glu Glu Phe Leu Cys Glu Pro Pro Leu Ile Thr Arg Gln
 290 295 300

Ala Gly Gly Arg Ala Leu Val Val Glu Gly Gln Ala Val Ser Leu Arg
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Cys Arg Ala Val Gly Asp Pro Glu Pro Val Val His Trp Val Ala Pro
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Asp Gly Arg Leu Leu Gly Asn Ser Ser Arg Thr Arg Val Arg Gly Asp
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Gly Thr Leu Asp Val Thr Ile Thr Thr Leu Arg Asp Ser Gly Thr Phe
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 Thr Cys Ile Ala Ser Asn Ala Ala Gly Glu Ala Thr Ala Pro Val Glu
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 Val Cys Val Val Pro Leu Pro Leu Met Ala Pro Pro Pro Ala Ala Pro
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 Pro Pro Leu Thr Glu Pro Gly Ser Ser Asp Ile Ala Thr Pro Gly Arg
 405 410 415
 Pro Gly Ala Asn Asp Ser Ala Ala Glu Arg Arg Leu Val Ala Ala Glu
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 Pro Gly Ile Arg Met Tyr Gln Val Gln Tyr Asn Ser Ser Val Asp Asp
 450 455 460
 Ser Leu Val Tyr Arg Met Ile Pro Ser Thr Ser Gln Thr Phe Leu Val
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 Asn Asp Leu Ala Ala Gly Arg Ala Tyr Asp Leu Cys Val Leu Ala Val
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 Tyr Asp Asp Gly Ala Thr Ala Leu Pro Ala Thr Arg Val Val Gly Cys
 500 505 510
 Val Gln Phe Thr Thr Ala Gly Asp Pro Ala Pro Cys Arg Pro Leu Arg
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 Ala His Phe Leu Gly Gly Thr Met Ile Ile Ala Ile Gly Gly Val Ile
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 Val Ala Ser Val Leu Val Phe Ile Val Leu Leu Met Ile Arg Tyr Lys
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 Val Tyr Gly Asp Gly Asp Ser Arg Arg Val Lys Gly Ser Arg Ser Leu
 565 570 575
 Pro Arg Val Ser His Val Cys Ser Gln Thr Asn Gly Ala Gly Thr Gly
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 Ala Ala Gln Ala Pro Ala Leu Pro Ala Gln Asp His Tyr Glu Ala Leu
 595 600 605

Arg Glu Val Glu Ser Gln Ala Ala Pro Ala Val Ala Val Glu Ala Lys
 610 615 620
 Ala Met Glu Ala Glu Thr Ala Ser Ala Glu Pro Glu Val Val Leu Gly
 625 630 635 640
 Arg Ser Leu Gly Gly Ser Ala Thr Ser Leu Cys Leu Leu Pro Ser Glu
 645 650 655
 Glu Thr Ser Gly Glu Glu Ser Arg Ala Ala Val Gly Pro Arg Arg Ser
 660 665 670
 Arg Ser Gly Ala Leu Glu Pro Pro Thr Ser Ala Pro Pro Thr Leu Ala
 675 680 685
 Leu Val Pro Gly Gly Ala Ala Ala Arg Pro Arg Pro Gln Gln Arg Tyr
 690 695 700
 Ser Phe Asp Gly Asp Tyr Gly Ala Leu Phe Gln Ser His Ser Tyr Pro
 705 710 715 720
 Arg Arg Ala Arg Arg Thr Lys Arg His Arg Ser Thr Pro His Leu Asp
 725 730 735
 Gly Ala Gly Gly Gly Ala Ala Gly Glu Asp Gly Asp Leu Gly Leu Gly
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 Ser Ala Arg Ala Cys Leu Ala Phe Thr Ser Thr Glu Trp Met Leu Glu
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 Ser Thr Val
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<210> 7
 <211> 2450
 <212> DNA
 <213> Homo sapiens

<400> 7
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```

<210> 8

<211> 775

<212> PRT

<213> Homo sapiens

<400> 8

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Met Ala Pro Gly Pro Phe Ser Ser Ala Leu Leu Ser Pro Pro Pro Ala
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```

```

Ala Leu Pro Phe Leu Leu Leu Leu Trp Ala Gly Ala Ser Arg Gly Gln
  20                   25                   30

```


Ile	Pro	Glu	Glu	Glu	Phe	Leu	Cys	Glu	Pro	Pro	Leu	Ile	Thr	Arg	Gln	290	295	300	
Ala	Gly	Gly	Arg	Ala	Leu	Val	Val	Glu	Gly	Gln	Ala	Val	Ser	Leu	Arg	305	310	315	320
Cys	Arg	Ala	Val	Gly	Asp	Pro	Glu	Pro	Val	Val	His	Trp	Val	Ala	Pro	325	330	335	
Asp	Gly	Arg	Leu	Leu	Gly	Asn	Ser	Ser	Arg	Thr	Arg	Val	Arg	Gly	Asp	340	345	350	
Gly	Thr	Leu	Asp	Val	Thr	Ile	Thr	Thr	Leu	Arg	Asp	Ser	Gly	Thr	Phe	355	360	365	
Thr	Cys	Ile	Ala	Ser	Asn	Ala	Ala	Gly	Glu	Ala	Thr	Ala	Pro	Val	Glu	370	375	380	
Val	Cys	Val	Val	Pro	Leu	Pro	Leu	Met	Ala	Pro	Pro	Pro	Ala	Ala	Pro	385	390	395	400
Pro	Pro	Leu	Thr	Glu	Pro	Gly	Ser	Ser	Asp	Ile	Ala	Thr	Pro	Gly	Arg	405	410	415	
Pro	Gly	Ala	Asn	Asp	Ser	Ala	Ala	Glu	Arg	Arg	Leu	Val	Ala	Ala	Glu	420	425	430	
Leu	Thr	Ser	Asn	Ser	Val	Leu	Ile	Arg	Trp	Pro	Ala	Gln	Arg	Pro	Val	435	440	445	
Pro	Gly	Ile	Arg	Met	Tyr	Gln	Val	Gln	Tyr	Asn	Ser	Ser	Val	Asp	Asp	450	455	460	
Ser	Leu	Val	Tyr	Arg	Trp	Val	Tyr	Arg	Met	Ile	Pro	Ser	Thr	Ser	Gln	465	470	475	480
Thr	Phe	Leu	Val	Asn	Asp	Leu	Ala	Ala	Gly	Arg	Ala	Tyr	Asp	Leu	Cys	485	490	495	
Val	Leu	Ala	Val	Tyr	Asp	Asp	Gly	Ala	Thr	Ala	Leu	Pro	Ala	Thr	Arg	500	505	510	
Val	Val	Gly	Cys	Val	Gln	Phe	Thr	Thr	Ala	Gly	Asp	Pro	Ala	Pro	Cys	515	520	525	
Arg	Pro	Leu	Arg	Ala	His	Phe	Leu	Gly	Gly	Thr	Met	Ile	Ile	Ala	Ile	530	535	540	

Gly Gly Val Ile Val Ala Ser Val Leu Val Phe Ile Val Leu Leu Met
545 550 555 560

Ile Arg Tyr Lys Val Tyr Gly Asp Gly Asp Ser Arg Arg Val Lys Gly
565 570 575

Ser Arg Ser Leu Pro Arg Val Ser His Val Cys Ser Gln Thr Asn Gly
580 585 590

Ala Gly Thr Gly Ala Ala Gln Ala Pro Ala Leu Pro Ala Gln Asp His
595 600 605

Tyr Glu Ala Leu Arg Glu Val Glu Ser Gln Ala Ala Pro Ala Val Ala
610 615 620

Val Glu Ala Lys Ala Met Glu Ala Glu Thr Ala Ser Ala Glu Pro Glu
625 630 635 640

Val Val Leu Gly Arg Ser Leu Gly Gly Ser Ala Thr Ser Leu Cys Leu
645 650 655

Leu Pro Ser Glu Glu Thr Ser Gly Glu Glu Ser Arg Ala Ala Val Gly
660 665 670

Pro Arg Arg Ser Arg Ser Gly Ala Leu Glu Pro Pro Thr Ser Ala Pro
675 680 685

Pro Thr Leu Ala Leu Val Pro Gly Gly Ala Ala Ala Arg Pro Arg Pro
690 695 700

Gln Gln Arg Tyr Ser Phe Asp Gly Asp Tyr Gly Ala Leu Phe Gln Ser
705 710 715 720

His Ser Tyr Pro Arg Arg Ala Arg Arg Thr Lys Arg His Arg Ser Thr
725 730 735

Pro His Leu Asp Gly Ala Gly Gly Gly Ala Ala Gly Glu Asp Gly Asp
740 745 750

Leu Gly Leu Gly Ser Ala Arg Ala Cys Leu Ala Phe Thr Ser Thr Glu
755 760 765

Trp Met Leu Glu Ser Thr Val
770 775

<210> 9

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 9

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```

<210> 10

<211> 799

<212> PRT

<213> Homo sapiens

<400> 10

```

Met Ala Ala Lys Ser His Ala Trp Val Thr Gly Ser Phe Pro Gly Arg
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```

```

Ser His Leu Pro Pro Leu Leu Pro Ser His Cys Thr Met Ala Pro Gly
          20              25              30

```

```

Pro Phe Ser Ser Ala Leu Leu Ser Pro Pro Pro Ala Ala Leu Pro Phe
          35              40              45

```

```

Leu Leu Leu Leu Trp Ala Gly Ala Ser Arg Gly Gln Pro Cys Pro Gly
          50              55              60

```

```

Arg Cys Ile Cys Gln Asn Val Ala Pro Thr Leu Thr Met Leu Cys Ala
          65              70              75              80

```

```

Lys Thr Gly Leu Leu Phe Val Pro Pro Ala Ile Asp Arg Arg Val Val
          85              90              95

```

```

Glu Leu Arg Leu Thr Asp Asn Phe Ile Ala Ala Val Arg Arg Arg Asp
          100             105             110

```

```

Phe Ala Asn Met Thr Ser Leu Val His Leu Thr Leu Ser Arg Asn Thr
          115             120             125

```

Ile Gly Gln Val Ala Ala Gly Ala Phe Ala Asp Leu Arg Ala Leu Arg	130	135	140
Ala Leu His Leu Asp Ser Asn Arg Leu Ala Glu Val Arg Gly Asp Gln	145	150	155 160
Leu Arg Gly Leu Gly Asn Leu Arg His Leu Ile Leu Gly Asn Asn Gln	165	170	175
Ile Arg Arg Val Glu Ser Ala Ala Phe Asp Ala Phe Leu Ser Thr Val	180	185	190
Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu Ala Leu Pro Trp Glu	195	200	205
Ala Val Gly Gln Met Val Asn Leu Asn Thr Leu Thr Leu Asp His Asn	210	215	220
Leu Ile Asp His Ile Ala Glu Gly Thr Phe Val Gln Leu His Lys Leu	225	230	235 240
Val Arg Leu Asp Met Thr Ser Asn Arg Leu His Lys Leu Pro Pro Asp	245	250	255
Gly Leu Phe Leu Arg Ser Gln Gly Thr Gly Pro Lys Pro Pro Thr Pro	260	265	270
Leu Thr Val Ser Phe Gly Gly Asn Pro Leu His Cys Asn Cys Glu Leu	275	280	285
Leu Trp Leu Arg Arg Leu Thr Arg Glu Asp Asp Leu Glu Thr Cys Ala	290	295	300
Thr Pro Glu His Leu Thr Asp Arg Tyr Phe Trp Ser Ile Pro Glu Glu	305	310	315 320
Glu Phe Leu Cys Glu Pro Pro Leu Ile Thr Arg Gln Ala Gly Gly Arg	325	330	335
Ala Leu Val Val Glu Gly Gln Ala Val Ser Leu Arg Cys Arg Ala Val	340	345	350
Gly Asp Pro Glu Pro Val Val His Trp Val Ala Pro Asp Gly Arg Leu	355	360	365
Leu Gly Asn Ser Ser Arg Thr Arg Val Arg Gly Asp Gly Thr Leu Asp	370	375	380

Val Thr Ile Thr Thr Leu Arg Asp Ser Gly Thr Phe Thr Cys Ile Ala	385	390	395	400
Ser Asn Ala Ala Gly Glu Ala Thr Ala Pro Val Glu Val Cys Val Val		405	410	415
Pro Leu Pro Leu Met Ala Pro Pro Pro Ala Ala Pro Pro Pro Leu Thr		420	425	430
Glu Pro Gly Ser Ser Asp Ile Ala Thr Pro Gly Arg Pro Gly Ala Asn	435		440	445
Asp Ser Ala Ala Glu Arg Arg Leu Val Ala Ala Glu Leu Thr Ser Asn	450		455	460
Ser Val Leu Ile Arg Trp Pro Ala Gln Arg Pro Val Pro Gly Ile Arg	465	470	475	480
Met Tyr Gln Val Gln Tyr Asn Ser Ser Val Asp Asp Ser Leu Val Tyr		485	490	495
Arg Met Ile Pro Ser Thr Ser Gln Thr Phe Leu Val Asn Asp Leu Ala		500	505	510
Ala Gly Arg Ala Tyr Asp Leu Cys Val Leu Ala Val Tyr Asp Asp Gly	515		520	525
Ala Thr Ala Leu Pro Ala Thr Arg Val Val Gly Cys Val Gln Phe Thr	530		535	540
Thr Ala Gly Asp Pro Ala Pro Cys Arg Pro Leu Arg Ala His Phe Leu	545	550	555	560
Gly Gly Thr Met Ile Ile Ala Ile Gly Gly Val Ile Val Ala Ser Val		565	570	575
Leu Val Phe Ile Val Leu Leu Met Ile Arg Tyr Lys Val Tyr Gly Asp		580	585	590
Gly Asp Ser Arg Arg Val Lys Gly Ser Arg Ser Leu Pro Arg Val Ser	595		600	605
His Val Cys Ser Gln Thr Asn Gly Ala Gly Thr Gly Ala Ala Gln Ala	610		615	620
Pro Ala Leu Pro Ala Gln Asp His Tyr Glu Ala Leu Arg Glu Val Glu	625	630	635	640

Ser Gln Ala Ala Pro Ala Val Ala Val Glu Ala Lys Ala Met Glu Ala
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 Glu Thr Ala Ser Ala Glu Pro Glu Val Val Leu Gly Arg Ser Leu Gly
 660 665 670
 Gly Ser Ala Thr Ser Leu Cys Leu Leu Pro Ser Glu Glu Thr Ser Gly
 675 680 685
 Glu Glu Ser Arg Ala Ala Val Gly Pro Arg Arg Ser Arg Ser Gly Ala
 690 695 700
 Leu Glu Pro Pro Thr Ser Ala Pro Pro Thr Leu Ala Leu Val Pro Gly
 705 710 715 720
 Gly Ala Ala Ala Arg Pro Arg Pro Gln Gln Arg Tyr Ser Phe Asp Gly
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 Asp Tyr Gly Ala Leu Phe Gln Ser His Ser Tyr Pro Arg Arg Ala Arg
 740 745 750
 Arg Thr Lys Arg His Arg Ser Thr Pro His Leu Asp Gly Ala Gly Gly
 755 760 765
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<210> 12

<211> 383

<212> PRT

<213> Homo sapiens

<400> 12

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Lys Met Asp Asn Gln Val Leu Gly Tyr Lys Asp Leu Ala Ala Ile Pro
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Lys Asp Lys Ala Ile Leu Asp Ile Glu Arg Pro Asp Leu Met Ile Tyr
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Glu Pro His Phe Thr Tyr Ser Leu Leu Glu His Val Glu Leu Pro Arg
 65 70 75 80

Ser Arg Glu Arg Ser Leu Ser Pro Lys Ser Thr Ser Pro Pro Pro Ser
 85 90 95

Pro Glu Val Trp Ala Asp Ser Arg Ser Pro Gly Ile Ile Ser Gln Ala
 100 105 110

Ser Ala Pro Arg Thr Thr Gly Thr Pro Arg Thr Arg Leu Pro His Phe
 115 120 125

His His Pro Glu Thr Ser Arg Pro Asp Ser Asn Ile Tyr Lys Lys Pro
 130 135 140

Pro Ile Tyr Lys Gln Arg Glu Ser Val Gly Gly Ser Pro Gln Thr Lys
 145 150 155 160

His Leu Ile Glu Asp Leu Ile Ile Glu Ser Ser Lys Phe Pro Ala Ala
 165 170 175

Gln Pro Pro Asp Pro Asn Gln Pro Ala Lys Ile Glu Thr Asp Tyr Trp
 180 185 190

Pro Cys Pro Pro Ser Leu Ala Val Val Glu Thr Glu Trp Arg Lys Arg
 195 200 205

Lys Ala Ser Arg Arg Gly Ala Glu Glu Glu Glu Glu Glu Asp Asp
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Asp Ser Gly Glu Glu Met Lys Ala Leu Arg Glu Arg Gln Arg Glu Glu
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Leu Ser Lys Val Thr Ser Asn Leu Gly Lys Met Ile Leu Lys Glu Glu
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Met Glu Lys Ser Leu Pro Ile Arg Arg Lys Thr Arg Ser Leu Pro Asp
 260 265 270

Arg Thr Pro Phe His Thr Ser Leu His Gln Gly Thr Ser Lys Ser Ser
 275 280 285

Ser Leu Pro Ala Tyr Gly Arg Thr Thr Leu Ser Arg Leu Gln Ser Thr
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Glu Phe Ser Pro Ser Gly Ser Glu Thr Gly Ser Pro Gly Leu Gln Ile
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Tyr Pro Tyr Glu Met Leu Val Val Thr Asn Lys Gly Arg Thr Lys Leu
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Pro Pro Gly Val Asp Arg Met Arg Leu Glu Arg His Leu Ser Ala Glu
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Asp Phe Ser Arg Val Phe Ala Met Ser Pro Glu Glu Phe Gly Lys Leu
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<210> 13

<211> 3447

<212> DNA

<213> Homo sapiens

<400> 13

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<210> 14

<211> 977

<212> PRT

<213> Homo sapiens

<400> 14

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      20                   25                   30

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Gln Ile Val Leu Leu Pro Ala Glu Ala Arg Gln Arg Ser Arg Gly Arg
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 Asp Ser Ser Arg Ser Val Asn Thr His Asp Tyr Ala Lys Val Lys Glu
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 Phe Ile Val Asp Ile Leu Gln Phe Leu Asp Ile Gly Pro Asp Val Thr
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 Arg Val Gly Leu Leu Gln Tyr Gly Ser Thr Val Lys Asn Glu Phe Ser
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 Met Arg His Leu Ser Thr Gly Thr Met Thr Gly Leu Ala Ile Gln Tyr
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 Asp Ser Val Ala Glu Val Ala Ala Lys Ala Arg Asp Thr Gly Ile Leu
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 Ile Phe Ala Ile Gly Val Gly Gln Val Asp Phe Asn Thr Leu Lys Ser
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 Ile Gly Ser Glu Pro His Glu Asp His Val Phe Leu Val Ala Asn Phe
 225 230 235 240
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 245 250 255
 Ala His Met Cys Ser Thr Leu Glu His Asn Cys Ala His Phe Cys Ile
 260 265 270
 Asn Ile Pro Gly Ser Tyr Val Cys Arg Cys Lys Gln Gly Tyr Ile Leu
 275 280 285

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Cys	Gln	Cys	Tyr	Ser	Gly	Tyr	Ala	Leu	Ala	Glu	Asp	Gly	Lys	Arg	Cys	325	330	335	
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Tyr	Ser	Cys	His	Cys	Leu	Lys	Gly	Phe	Thr	Leu	Asn	Pro	Asp	Lys	Lys	405	410	415	
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Cys	Glu	Tyr	Ser	Cys	Val	Asn	Met	Asp	Arg	Ser	Phe	Ala	Cys	Gln	Cys	515	520	525	
Pro	Glu	Gly	His	Val	Leu	Arg	Ser	Asp	Gly	Lys	Thr	Cys	Ala	Lys	Leu	530	535	540	

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Gln	Gly	Glu	Gly	Ala	Arg	Pro	Phe	Ser	Thr	Arg	Val	Pro	Arg	Ala	Ala		
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Ser Lys Ala Lys Ala Asn Gly Ile Thr Met Tyr Ala Val Gly Val Gly
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 Lys Ala Ile Glu Glu Glu Leu Gln Glu Ile Ala Ser Glu Pro Thr Asn
 820 825 830
 Lys His Leu Phe Tyr Ala Glu Asp Phe Ser Thr Met Asp Glu Ile Ser
 835 840 845
 Glu Lys Leu Lys Lys Gly Ile Cys Glu Ala Leu Glu Asp Ser Asp Gly
 850 855 860
 Arg Gln Asp Ser Pro Ala Gly Glu Leu Pro Lys Thr Val Gln Gln Pro
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 Thr Glu Ser Glu Pro Val Thr Ile Asn Ile Gln Asp Leu Leu Ser Cys
 885 890 895
 Ser Asn Phe Ala Val Gln His Arg Tyr Leu Phe Glu Glu Asp Asn Leu
 900 905 910
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 915 920 925
 Pro Leu Glu Glu Lys His Asp Gln Cys Lys Cys Glu Asn Leu Ile Met
 930 935 940
 Phe Gln Asn Leu Ala Asn Glu Glu Val Arg Lys Leu Thr Gln Arg Leu
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<210> 15

<211> 2756

<212> DNA

<213> Homo sapiens

<400> 15

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<210> 16

<211> 896

<212> PRT

<213> Homo sapiens

<400> 16

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Ser Arg Gly Arg His Ala Arg Thr His Pro Gln Thr Ala Leu Leu Glu
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Ser Ser Cys Glu Asn Met Arg Ala Asp Leu Val Phe Ile Ile Asp Ser
50 55 60

Ser Arg Ser Val Asn Thr His Asp Tyr Ala Lys Val Lys Glu Phe Ile
65 70 75 80

Val Asp Ile Leu Gln Phe Leu Asp Ile Gly Pro Asp Val Thr Arg Val
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Gly Leu Leu Gln Tyr Gly Ser Thr Val Lys Asn Glu Phe Ser Leu Lys
100 105 110

Thr Phe Lys Arg Lys Ser Glu Val Glu Arg Ala Val Lys Arg Met Arg
115 120 125

His Leu Ser Thr Gly Thr Met Thr Gly Leu Ala Ile Gln Tyr Ala Leu
130 135 140

Asn Ile Ala Phe Ser Glu Ala Glu Gly Ala Arg Pro Leu Arg Glu Asn
145 150 155 160

Val Pro Arg Val Ile Met Ile Val Thr Asp Gly Arg Pro Gln Asp Ser
165 170 175

Val Ala Glu Val Ala Ala Lys Ala Arg Asp Thr Gly Ile Leu Ile Phe
180 185 190

Ala Ile Gly Val Gly Gln Val Asp Phe Asn Thr Leu Lys Ser Ile Gly
195 200 205

Ser Glu Pro His Glu Asp His Val Phe Leu Val Ala Asn Phe Ser Gln
210 215 220

Ile Glu Thr Leu Thr Ser Val Phe Gln Lys Lys Leu Cys Thr Ala His
225 230 235 240

Met Cys Ser Thr Leu Glu His Asn Cys Ala His Phe Cys Ile Asn Ile

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Pro Gly Ser Tyr Val Cys Arg Cys Lys Gln Gly Tyr Ile Leu Asn Ser	260		265		270
Asp Gln Thr Thr Cys Arg Ile Gln Asp Leu Cys Ala Met Glu Asp His	275		280		285
Asn Cys Glu Gln Leu Cys Val Asn Val Pro Gly Ser Phe Val Cys Gln	290		295		300
Cys Tyr Ser Gly Tyr Ala Leu Ala Glu Asp Gly Lys Arg Cys Val Ala	305		310		315
Val Asp Tyr Cys Ala Ser Ser Asn His Gly Cys Gln His Glu Cys Val	325		330		335
Asn Thr Asp Asp Ser Tyr Ser Cys His Cys Leu Lys Gly Phe Thr Leu	340		345		350
Asn Pro Asp Lys Lys Thr Cys Arg Arg Ile Asn Tyr Cys Ala Leu Asn	355		360		365
Lys Pro Gly Cys Glu His Glu Cys Val Asn Met Glu Glu Ser Tyr Tyr	370		375		380
Cys Arg Cys His Arg Gly Tyr Thr Leu Asp Pro Asn Gly Lys Thr Cys	385		390		395
Ser Arg Val Asp His Cys Ala Gln Gln Asp His Gly Cys Glu Gln Leu	405		410		415
Cys Leu Asn Thr Glu Asp Ser Phe Val Cys Gln Cys Ser Glu Gly Phe	420		425		430
Leu Ile Asn Glu Asp Leu Lys Thr Cys Ser Arg Val Asp Tyr Cys Leu	435		440		445
Leu Ser Asp His Gly Cys Glu Tyr Ser Cys Val Asn Met Asp Arg Ser	450		455		460
Phe Ala Cys Gln Cys Pro Glu Gly His Val Leu Arg Ser Asp Gly Lys	465		470		475
Thr Cys Ala Lys Leu Asp Ser Cys Ala Leu Gly Asp His Gly Cys Glu	485		490		495
His Ser Cys Val Ser Ser Glu Asp Ser Phe Val Cys Gln Cys Phe Glu					

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Gly Tyr Ile Leu Arg Glu Asp	Gly Lys Thr Cys Arg Arg	Lys Asp Val
515	520	525
Cys Gln Ala Ile Asp His	Gly Cys Glu His Ile	Cys Val Asn Ser Asp
530	535	540
Asp Ser Tyr Thr Cys Glu Cys	Leu Glu Gly Phe Arg	Leu Ala Glu Asp
545	550	555
Gly Lys Arg Cys Arg Arg	Lys Asp Val Cys Lys Ser	Thr His His Gly
565	570	575
Cys Glu His Ile Cys Val Asn	Asn Gly Asn Ser Tyr Ile	Cys Lys Cys
580	585	590
Ser Glu Gly Phe Val Leu Ala	Glu Asp Gly Arg Arg	Cys Lys Lys Cys
595	600	605
Thr Glu Gly Pro Ile Asp	Leu Val Phe Val Ile	Asp Gly Ser Lys Ser
610	615	620
Leu Gly Glu Glu Asn Phe	Glu Val Val Lys Gln Phe	Val Thr Gly Ile
625	630	635
Ile Asp Ser Leu Thr Ile	Ser Pro Lys Ala Ala	Arg Val Gly Leu Leu
645	650	655
Gln Tyr Ser Thr Gln Val	His Thr Glu Phe Thr	Leu Arg Asn Phe Asn
660	665	670
Ser Ala Lys Asp Met Lys	Lys Ala Val Ala His	Met Lys Tyr Met Gly
675	680	685
Lys Gly Ser Met Thr Gly	Leu Ala Leu Lys His	Met Phe Glu Arg Ser
690	695	700
Phe Thr Gln Gly Glu Gly	Ala Arg Pro Leu Ser	Thr Arg Val Pro Arg
705	710	715
Ala Ala Ile Val Phe Thr	Asp Gly Arg Ala Gln	Asp Asp Val Ser Glu
725	730	735
Trp Ala Ser Lys Ala Lys	Ala Asn Gly Ile Thr	Met Tyr Ala Val Gly
740	745	750
Val Gly Lys Ala Ile Glu	Glu Glu Leu Gln Glu	Ile Ala Ser Glu Pro

755	760	765
Thr Asn Lys His Leu Phe Tyr Ala Glu Asp Phe Ser Thr Met Asp Glu		
770	775	780
Ile Ser Glu Lys Leu Lys Lys Gly Ile Cys Glu Ala Leu Glu Asp Ser		
785	790	795 800
Asp Gly Arg Gln Asp Ser Pro Ala Gly Glu Leu Pro Lys Thr Val Gln		
	805	810 815
Gln Pro Thr Val Gln His Arg Tyr Leu Phe Glu Glu Asp Asn Leu Leu		
	820	825 830
Arg Ser Thr Gln Lys Leu Ser His Ser Thr Lys Pro Ser Gly Ser Pro		
	835	840 845
Leu Glu Glu Lys His Asp Gln Cys Lys Cys Glu Asn Leu Ile Met Phe		
	850	855 860
Gln Asn Leu Ala Asn Glu Glu Val Arg Lys Leu Thr Gln Arg Leu Glu		
865	870	875 880
Glu Met Thr Gln Arg Met Glu Ala Leu Glu Asn Arg Leu Arg Tyr Arg		
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<210> 17

<211> 1799

<212> DNA

<213> Homo sapiens

<400> 17

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<210> 18

<211> 458

<212> PRT

<213> Homo sapiens

<400> 18

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Leu	Val	Cys	Ala	Ala	Ser	Asn	Ile	Lys	Met	Thr	His	Gln	Arg	Cys	Ser
			20					25					30		

Ser	Ser	Met	Lys	Gln	Thr	Val	Arg	Cys	Ser	Met	Lys	Lys	Asp	Asp	Ser
		35					40					45			

Thr	Lys	Ala	Arg	Pro	Gln	Lys	Tyr	Glu	Gln	Leu	Leu	His	Ile	Glu	Asp
	50					55					60				

Asn	Asp	Phe	Ala	Met	Arg	Pro	Gly	Phe	Gly	Gly	Ser	Pro	Val	Pro	Val
65					70				75					80	

Gly	Ile	Asp	Val	His	Val	Glu	Ser	Ile	Asp	Ser	Ile	Ser	Glu	Thr	Asn
				85					90					95	

Met	Asp	Phe	Thr	Met	Thr	Phe	Tyr	Leu	Arg	His	Tyr	Trp	Lys	Asp	Glu
			100					105					110		

Arg Leu Ser Phe Pro Ser Thr Ala Asn Lys Ser Met Thr Phe Asp His

115	120	125
Arg Lys Ser Ile Pro Arg Pro Glu His Leu Arg Tyr Ser Leu Phe Ile		
130	135	140
Arg Arg Leu Tyr Leu Leu Tyr Cys Gln Arg Ser Phe Phe Ser Pro Ser		
145	150	155 160
Ser Ile Leu Pro Ser Ser Pro Asp Ile His Ala Pro Gly Thr Ser Lys		
	165	170 175
Ser Ser Leu Ser Asp Ser Leu Val Cys Ile Ser Glu Lys Asn Leu Pro		
	180	185 190
Gly His Ser Lys Asn Thr Pro Leu Ala Met Ala Tyr Asn Glu Asp Asp		
	195	200 205
Leu Met Leu Tyr Trp Lys His Gly Asn Lys Ser Leu Asn Thr Glu Glu		
	210	215 220
His Met Ser Leu Ser Gln Phe Phe Ile Glu Asp Phe Ser Ala Ser Ser		
	225	230 235 240
Gly Leu Ala Phe Tyr Ser Ser Thr Gly Thr Ala Phe Tyr Met Gly Asp		
	245	250 255
Ser Ser Ala Phe Ile Gly His Leu Leu Phe Leu Asn Arg His Leu His		
	260	265 270
Phe Phe Ile Ile Asn Phe Glu Ile Thr Gln Ile Leu Met Ile Gly Ile		
	275	280 285
Thr Thr Val Leu Thr Met Ser Thr Ile Ile Thr Ala Val Ser Ala Ser		
	290	295 300
Met Pro Gln Val Ser Tyr Leu Lys Ala Val Asp Val Tyr Leu Trp Val		
	305	310 315 320
Ser Ser Leu Phe Val Phe Leu Ser Val Ile Glu Tyr Ala Ala Val Asn		
	325	330 335
Tyr Leu Thr Thr Val Glu Glu Arg Lys Gln Phe Lys Lys Thr Gly Lys		
	340	345 350
Val Gln Ile Ser Arg Met Tyr Asn Ile Asp Ala Val Gln Ala Met Ala		
	355	360 365
Phe Asp Gly Cys Tyr His Asp Ser Glu Ile Asp Met Asp Gln Thr Ser		

370		375		380
Leu Ser Leu Asn Ser Glu Asp Phe Met Arg Arg Lys Ser Ile Cys Ser				
385		390		400
Pro Ser Thr Asp Ser Ser Arg Ile Lys Arg Arg Lys Ser Leu Gly Gly				
	405		410	415
His Val Gly Arg Ile Ile Leu Glu Asn Asn His Val Ile Asp Thr Tyr				
	420		425	430
Ser Arg Ile Leu Phe Pro Ile Val Tyr Ile Pro Leu Cys Ile Ser Leu				
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Phe Asn Leu Phe Tyr Trp Gly Val Tyr Val				
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<210> 19

<211> 3147

<212> DNA

<213> Homo sapiens

<400> 19

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<210> 20

<211> 904

<212> PRT

<213> Homo sapiens

<400> 20

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Lys Arg Asp Leu Phe Gln Phe Asn Lys Thr Val Glu His Gly Phe Pro
      20             25             30

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His Gln Pro Ser Ala Leu Gly Tyr Ser Pro Ser Leu His Ile Leu Ala
      35             40             45

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Ile Gly Thr Arg Ser Gly Ala Ile Lys Leu Tyr Gly Ala Pro Gly Val
      50             55             60

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Glu	Phe	Met	Gly	Leu	His	Gln	Glu	Asn	Asn	Ala	Val	Thr	Gln	Ile	His	65	70	75	80
Leu	Leu	Pro	Gly	Gln	Cys	Gln	Leu	Val	Thr	Leu	Leu	Asp	Asp	Asn	Ser	85	90	95	
Leu	His	Leu	Trp	Ser	Leu	Lys	Val	Lys	Gly	Gly	Ala	Ser	Glu	Leu	Gln	100	105	110	
Glu	Asp	Glu	Ser	Phe	Thr	Leu	Arg	Gly	Pro	Pro	Gly	Ala	Ala	Pro	Ser	115	120	125	
Ala	Thr	Gln	Ile	Thr	Val	Val	Leu	Pro	His	Ser	Ser	Cys	Glu	Leu	Leu	130	135	140	
Tyr	Leu	Gly	Thr	Glu	Ser	Gly	Asn	Val	Phe	Val	Val	Gln	Leu	Pro	Ala	145	150	155	160
Phe	Arg	Ala	Leu	Glu	Asp	Arg	Thr	Ile	Ser	Ser	Asp	Ala	Val	Leu	Gln	165	170	175	
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Ser	Arg	Gly	Leu	Val	Val	Ile	Trp	Asp	Leu	Gln	Gly	Ser	Arg	Val	Leu	210	215	220	
Tyr	His	Phe	Leu	Ser	Ser	Gln	Gln	Leu	Glu	Asn	Ile	Trp	Trp	Gln	Arg	225	230	235	240
Asp	Gly	Arg	Leu	Leu	Val	Ser	Cys	His	Ser	Asp	Gly	Ser	Tyr	Cys	Gln	245	250	255	
Trp	Pro	Val	Ser	Ser	Glu	Ala	Gln	Gln	Pro	Glu	Pro	Leu	Arg	Ser	Leu	260	265	270	
Val	Pro	Tyr	Gly	Pro	Phe	Pro	Cys	Lys	Ala	Ile	Thr	Arg	Ile	Leu	Trp	275	280	285	
Leu	Thr	Thr	Arg	Gln	Gly	Leu	Pro	Phe	Thr	Ile	Phe	Gln	Gly	Gly	Met	290	295	300	
Pro	Arg	Ala	Ser	Tyr	Gly	Asp	Arg	His	Cys	Ile	Ser	Val	Ile	His	Asp	305	310	315	320

Gly	Gln	Gln	Thr	Ala	Phe	Asp	Phe	Thr	Ser	Arg	Val	Ile	Gly	Thr	Val	325	330	335	
Arg	Phe	Trp	Asp	Ala	Ser	Gly	Val	Cys	Leu	Arg	Leu	Leu	Tyr	Lys	Leu	340	345	350	
Ser	Thr	Val	Arg	Val	Phe	Leu	Thr	Asp	Thr	Asp	Pro	Asn	Glu	Asn	Phe	355	360	365	
Ser	Ala	Gln	Gly	Glu	Asp	Glu	Trp	Pro	Pro	Leu	Arg	Lys	Val	Gly	Ser	370	375	380	
Phe	Asp	Pro	Tyr	Ser	Asp	Asp	Pro	Arg	Leu	Gly	Ile	Gln	Lys	Ile	Phe	385	390	395	400
Leu	Cys	Lys	Tyr	Ser	Gly	Tyr	Leu	Ala	Val	Ala	Gly	Thr	Ala	Gly	Gln	405	410	415	
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Gln	Val	Glu	Ala	Asp	Leu	Leu	Gln	Asp	Gln	Glu	Gly	Tyr	Arg	Trp	Lys	435	440	445	
Gly	His	Glu	Arg	Leu	Ala	Ala	Arg	Ser	Gly	Pro	Val	Arg	Phe	Glu	Pro	450	455	460	
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Thr	Ser	Leu	Ala	Leu	His	Ser	Glu	Trp	Arg	Leu	Val	Ala	Phe	Gly	Thr	485	490	495	
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850 855 860

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<212> DNA

<213> Homo sapiens

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<210> 22

<211> 1019

<212> PRT

<213> Homo sapiens

<400> 22

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    20                   25                   30

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 Ile Gly Thr Arg Ser Gly Ala Ile Lys Leu Tyr Gly Ala Pro Gly Val
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 85 90 95
 Leu His Leu Trp Ser Leu Lys Val Lys Gly Gly Ala Ser Glu Leu Gln
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 115 120 125
 Ala Thr Gln Ile Thr Val Val Leu Pro His Ser Ser Cys Glu Leu Leu
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 Phe Arg Ala Leu Glu Asp Arg Thr Ile Ser Ser Asp Ala Val Leu Gln
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 Ala Leu Gln Glu His Pro Arg Asp Pro Asn Gln Ile Leu Ile Gly Tyr
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 Ser Arg Gly Leu Val Val Ile Trp Asp Leu Gln Gly Ser Arg Val Leu
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 Val Pro Tyr Gly Pro Phe Pro Cys Lys Ala Ile Thr Arg Ile Leu Trp
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Leu Thr Thr Arg Gln Gly Leu Pro Phe Thr Ile Phe Gln Gly Gly Met
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Pro Arg Ala Ser Tyr Gly Asp Arg His Cys Ile Ser Val Ile His Asp
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Gly Gln Gln Thr Ala Phe Asp Phe Thr Ser Arg Val Ile Gly Phe Thr
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Val Leu Thr Glu Ala Asp Pro Ala Ala Thr Phe Asp Asp Pro Tyr Ala
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Leu Val Val Leu Ala Glu Glu Glu Leu Val Val Ile Asp Leu Gln Thr
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Ala Gly Trp Pro Pro Val Gln Leu Pro Tyr Leu Ala Ser Leu His Cys
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Ser Ala Ile Thr Cys Ser His His Val Ser Asn Ile Pro Leu Lys Leu
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Trp Glu Arg Ile Ile Ala Ala Gly Ser Arg Gln Asn Ala His Phe Ser
 405 410 415

Thr Met Glu Trp Pro Ile Asp Gly Gly Thr Ser Leu Thr Pro Ala Pro
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Pro Gln Arg Asp Leu Leu Leu Thr Gly His Glu Asp Gly Thr Val Arg
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Phe Trp Asp Ala Ser Gly Val Cys Leu Arg Leu Leu Tyr Lys Leu Ser
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Thr Val Arg Val Phe Leu Thr Asp Thr Asp Pro Asn Glu Asn Phe Ser
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Ala Gln Gly Glu Asp Glu Trp Pro Pro Leu Arg Lys Val Gly Ser Phe
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Asp Pro Tyr Ser Asp Asp Pro Arg Leu Gly Ile Gln Lys Ile Phe Leu
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Cys Lys Tyr Ser Gly Tyr Leu Ala Val Ala Gly Thr Ala Gly Gln Val
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Leu Val Leu Glu Leu Asn Asp Glu Ala Ala Glu Gln Ala Val Glu Gln
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His	Glu	Arg	Leu	Ala	Ala	Arg	Ser	Gly	Pro	Val	Arg	Phe	Glu	Pro	Gly	565	570	575	
Phe	Gln	Pro	Phe	Val	Leu	Val	Gln	Cys	Gln	Pro	Pro	Ala	Val	Val	Thr	580	585	590	
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Ala	Lys	Leu	Lys	Leu	Lys	Leu	Thr	Ala	Leu	Glu	Gly	Ser	Arg	Val	Arg	835	840	845	
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Glu	His	His	Leu	Ala	Val	Leu	Thr	Asn	Leu	Gly	Asp	Ile	Gln	Val	Val	865	870	875	880
Ser	Leu	Pro	Leu	Leu	Lys	Pro	Gln	Val	Arg	Tyr	Ser	Cys	Ile	Arg	Arg	885	890	895	
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Thr	Lys	Trp	Leu	Val	Glu	Pro	Arg	Cys	Leu	Val	Asp	Ser	Ala	Glu	Thr	930	935	940	
Lys	Asn	His	Arg	Pro	Gly	Asn	Gly	Ala	Gly	Pro	Lys	Lys	Ala	Pro	Ser	945	950	955	960
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<211> 2011

<212> DNA

<213> Homo sapiens

<400> 23

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<211> 666

<212> PRT

<213> Homo sapiens

<400> 24

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Phe	Glu	Pro	Gly	Lys	Phe	Leu	Asp	Gln	Gly	Leu	Asp	Asp	Asn	Tyr	Cys	225	230	235	240
Arg	Asn	Pro	Asp	Gly	Ser	Glu	Arg	Pro	Trp	Cys	Tyr	Thr	Thr	Asp	Pro	245	250	255	
Gln	Ile	Glu	Arg	Glu	Phe	Cys	Asp	Leu	Pro	Arg	Cys	Gly	Ser	Glu	Ala	260	265	270	
Gln	Pro	Arg	Gln	Glu	Ala	Thr	Thr	Val	Ser	Cys	Phe	Arg	Gly	Lys	Gly	275	280	285	

Glu	Gly	Tyr	Arg	Gly	Thr	Ala	Asn	Thr	Thr	Thr	Ala	Gly	Val	Pro	Cys	290	295	300	
Gln	Arg	Trp	Asp	Ala	Gln	Ile	Pro	His	Gln	His	Arg	Phe	Thr	Pro	Glu	305	310	315	320
Lys	Tyr	Ala	Cys	Lys	Asp	Leu	Arg	Glu	Asn	Phe	Cys	Arg	Asn	Pro	Asp	325	330	335	
Gly	Ser	Glu	Ala	Pro	Trp	Cys	Phe	Thr	Leu	Arg	Pro	Gly	Met	Arg	Ala	340	345	350	
Ala	Phe	Cys	Tyr	Gln	Ile	Arg	Arg	Cys	Thr	Asp	Asp	Val	Arg	Pro	Gln	355	360	365	
Thr	Ala	Thr	Thr	Ala	Gln	Gly	Ser	Ser	Thr	Ala	Ala	Arg	Ser	Ala	Arg	370	375	380	
Pro	Ala	Arg	Val	Ser	Ser	Ala	Ser	Ala	Gly	Pro	Leu	Arg	Arg	Arg	Thr	385	390	395	400
Ser	Arg	Ser	Ser	Arg	Leu	Pro	Pro	Asn	Arg	Met	His	Asn	Trp	Arg	Arg	405	410	415	
Thr	Ser	Ala	Gly	Thr	Gln	Met	Gly	Ile	Ala	Met	Gly	Pro	Gly	Ala	Thr	420	425	430	
Arg	Trp	Thr	Gln	Gly	Pro	His	Ser	Thr	Thr	Val	Pro	Cys	Asp	Ala	Ala	435	440	445	
Leu	Met	Thr	Ser	Arg	His	Gln	Ser	Trp	Thr	Pro	Gln	Thr	Arg	Cys	Ser	450	455	460	
Leu	Arg	Ser	Val	Ala	Arg	Gly	Trp	Ile	Gly	Trp	Ile	Ser	Gly	Val	Pro	465	470	475	480
Ser	Cys	Ala	Trp	Leu	Gly	Ala	Ile	Arg	Ala	Thr	His	Pro	Gly	Gln	Ser	485	490	495	
Ala	Cys	Gly	Ile	Gly	Met	Leu	Pro	Leu	Thr	Gly	Tyr	Glu	Val	Trp	Leu	500	505	510	
Gly	Thr	Leu	Phe	Gln	Asn	Pro	Gln	His	Gly	Glu	Pro	Ser	Leu	Gln	Arg	515	520	525	
Val	Pro	Val	Ala	Lys	Met	Val	Cys	Gly	Pro	Ser	Gly	Ser	Gln	Leu	Val	530	535	540	

Leu Leu Lys Leu Glu Arg Ser Val Thr Leu Asn Gln Arg Val Ala Leu
 545 550 555 560

Ile Cys Leu Pro Pro Glu Trp Tyr Val Val Pro Pro Gly Thr Lys Cys
 565 570 575

Glu Ile Ala Gly Trp Gly Glu Thr Lys Gly Thr Gly Asn Asp Thr Val
 580 585 590

Leu Asn Val Ala Leu Leu Asn Val Ile Ser Asn Gln Glu Cys Asn Ile
 595 600 605

Lys His Arg Gly Arg Gly Asp Tyr Gly Gly Pro Leu Ala Cys Phe Thr
 610 615 620

His Asn Cys Trp Val Leu Glu Gly Ile Ile Ile Pro Asn Arg Val Cys
 625 630 635 640

Ala Arg Ser Cys Trp Pro Ala Val Phe Thr Arg Val Ser Val Phe Val
 645 650 655

Asp Trp Ile His Lys Val Met Arg Leu Gly
 660 665

<210> 25

<211> 1463

<212> DNA

<213> Homo sapiens

<400> 25

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 gtgagcgctt tacggactcg cagttcctgg tgctaataaa ccgagtgtg gactgattg 660
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<210> 26

<211> 432

<212> PRT

<213> Homo sapiens

<400> 26

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Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser
 35 40 45

Phe Met Val Pro Gly Tyr Leu Met Val Gln Tyr Phe Arg Arg Lys Asn
 50 55 60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys
 65 70 75 80

Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro
 85 90 95

Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu
 100 105 110

Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val
 115 120 125

Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser
 130 135 140

Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg
 145 150 155 160

Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln

	165		170		175
Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser	180		185		190
Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser	195		200		205
Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met	210		215		220
Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr	225		230		235
Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser	245		250		255
Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu	260		265		270
Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp	275		280		285
Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe	290		295		300
Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu	305		310		315
Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu	325		330		335
Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln	340		345		350
Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr	355		360		365
Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu	370		375		380
Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val	385		390		395
Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys	405		410		415
Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val					

<210> 27
 <211> 1742
 <212> DNA
 <213> Homo sapiens

<400> 27
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 tgattgtggc tggcctctcc tgtgttctct gcaagcagcc ccggcatggg gcacccatgt 660
 accggtactc ctttgccagc ctgtccaatg tgcttagcag ctggtgcca tacgaagctc 720
 ttaagttcgt cagcttcccc acccaggtgc tggccaaggc ctctaagggtg atccctgtca 780
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<210> 28
 <211> 1368
 <212> DNA
 <213> Homo sapiens

<400> 28

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tgctccttct cttacccctg gagatcctgg tattcctctc cccactcta cgtctactgg 180
ttccgggacg gggagatccc atactacgct gaggttgtgg ccacaaacaa cccagacaga 240
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gccctgatag agaaacccga catccacttt ctggagcctc tggagtccgg ccgccccaca 480
aggctgagct gcagccttcc aggatcctgt gaagcgggac cacctctcac attctcctgg 540
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acccccaggc ccgaggacca tggcaccaac ctcacctgtc agatgaaacg ccaaggagct 660
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<210> 29

<211> 455

<212> PRT

<213> Homo sapiens

<400> 29

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Glu Lys Pro Val Tyr Glu Leu Gln Val Gln Lys Ser Val Thr Val Gln
      20                      25                      30

Glu Gly Leu Cys Val Leu Val Pro Cys Ser Phe Ser Tyr Pro Trp Arg
      35                      40                      45

Ser Trp Tyr Ser Ser Pro Pro Leu Tyr Val Tyr Trp Phe Arg Asp Gly
      50                      55                      60

Glu Ile Pro Tyr Tyr Ala Glu Val Val Ala Thr Asn Asn Pro Asp Arg
      65                      70                      75                      80
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Arg	Val	Lys	Pro	Glu	Thr	Gln	Gly	Arg	Phe	Arg	Leu	Leu	Gly	Asp	Val	85	90	95	
Gln	Lys	Lys	Asn	Cys	Ser	Leu	Ser	Ile	Gly	Asp	Ala	Arg	Met	Glu	Asp	100	105	110	
Thr	Gly	Ser	Tyr	Phe	Phe	Arg	Val	Glu	Arg	Gly	Arg	Asp	Val	Lys	Tyr	115	120	125	
Ser	Tyr	Gln	Gln	Asn	Lys	Leu	Asn	Leu	Glu	Val	Thr	Ala	Leu	Ile	Glu	130	135	140	
Lys	Pro	Asp	Ile	His	Phe	Leu	Glu	Pro	Leu	Glu	Ser	Gly	Arg	Pro	Thr	145	150	155	160
Arg	Leu	Ser	Cys	Ser	Leu	Pro	Gly	Ser	Cys	Glu	Ala	Gly	Pro	Pro	Leu	165	170	175	
Thr	Phe	Ser	Trp	Thr	Gly	Asn	Ala	Leu	Ser	Pro	Leu	Asp	Pro	Glu	Thr	180	185	190	
Thr	Arg	Ser	Ser	Glu	Leu	Thr	Leu	Thr	Pro	Arg	Pro	Glu	Asp	His	Gly	195	200	205	
Thr	Asn	Leu	Thr	Cys	Gln	Met	Lys	Arg	Gln	Gly	Ala	Gln	Val	Thr	Thr	210	215	220	
Glu	Arg	Thr	Val	Gln	Leu	Asn	Val	Ser	Asp	Ala	Pro	Gln	Thr	Ile	Thr	225	230	235	240
Ile	Phe	Arg	Asn	Gly	Ile	Ala	Leu	Glu	Ile	Leu	Gln	Asn	Thr	Ser	Tyr	245	250	255	
Leu	Pro	Val	Leu	Glu	Gly	Gln	Ala	Leu	Arg	Leu	Leu	Cys	Asp	Ala	Pro	260	265	270	
Ser	Asn	Pro	Pro	Ala	His	Ser	Trp	Phe	Gln	Gly	Ser	Pro	Ala	Leu	Asn	275	280	285	
Ala	Thr	Pro	Ile	Ser	Asn	Thr	Gly	Ile	Leu	Glu	Leu	Arg	Arg	Val	Arg	290	295	300	
Ser	Ala	Glu	Glu	Gly	Gly	Phe	Thr	Cys	Arg	Ala	Gln	His	Pro	Leu	Gly	305	310	315	320
Phe	Leu	Gln	Ile	Phe	Leu	Asn	Leu	Ser	Val	Tyr	Trp	Arg	Ser	Asn	Leu	325	330	335	

Gly Thr Gly Val Val Pro Ala Ala Leu Gly Gly Ala Gly Val Met Ala
340 345 350

Leu Leu Cys Ile Cys Leu Cys Leu Ile Phe Phe Leu Ile Val Lys Ala
355 360 365

Arg Arg Lys Gln Ala Ala Gly Arg Pro Glu Lys Met Asp Asp Glu Asp
370 375 380

Pro Ile Met Gly Thr Ile Thr Ser Gly Ser Arg Lys Lys Pro Trp Pro
385 390 395 400

Asp Ser Pro Gly Asp Gln Ala Ser Pro Pro Gly Asp Ala Pro Pro Leu
405 410 415

Glu Glu Gln Lys Glu Leu His Tyr Ala Ser Leu Ser Phe Ser Glu Met
420 425 430

Lys Ser Arg Glu Pro Lys Asp Gln Glu Ala Pro Ser Thr Thr Glu Tyr
435 440 445

Ser Glu Ile Lys Thr Ser Lys
450 455

<210> 30
<211> 1811
<212> DNA
<213> Homo sapiens

<400> 30
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tgagtggaa atgcagcatt ttatggctac agagttaagg caagggttga attccacgag 180
tcaaaaagca gcccttttca gagacccaac tctctggggt gtcaggggc ttgggctgga 240
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<210> 31
 <211> 395
 <212> PRT
 <213> Homo sapiens

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<400> 31
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Leu Leu Val Leu Leu Gly Leu Leu Tyr Ser Ser Thr Ser Cys Gly Val
      20             25             30

Gln Lys Ala Ser Val Phe Tyr Gly Pro Asp Pro Lys Glu Gly Leu Val
      35             40             45

Ser Ser Met Glu Phe Pro Trp Val Val Ser Leu Gln Asp Ser Gln Tyr
      50             55             60

Thr His Leu Ala Phe Gly Cys Ile Leu Ser Glu Phe Trp Val Leu Ser
      65             70             75             80

Ile Ala Ser Ala Ile Gln Asn Arg Lys Asp Ile Val Val Ile Val Gly
      85             90             95

Ile Ser Asn Met Asp Pro Ser Lys Ile Ala His Thr Glu Tyr Pro Val
      100            105            110

Asn Thr Ile Ile Ile His Glu Asp Phe Asp Asn Asn Ser Met Ser Asn
      115            120            125

Asn Ile Ala Leu Leu Lys Thr Asp Thr Ala Met His Phe Gly Asn Leu
      130            135            140

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Val	Gln	Ser	Ile	Cys	Phe	Leu	Gly	Arg	Met	Leu	His	Thr	Pro	Pro	Val	145	150	155	160
Leu	Gln	Asn	Cys	Trp	Val	Ser	Gly	Trp	Asn	Pro	Thr	Ser	Ala	Thr	Gly	165	170	175	
Asn	His	Met	Thr	Met	Ser	Val	Leu	Arg	Lys	Ile	Phe	Val	Lys	Asp	Leu	180	185	190	
Asp	Met	Cys	Pro	Leu	Tyr	Lys	Leu	Gln	Lys	Thr	Glu	Cys	Gly	Ser	His	195	200	205	
Thr	Lys	Glu	Glu	Thr	Lys	Thr	Ala	Cys	Leu	Gly	Asp	Pro	Gly	Ser	Pro	210	215	220	
Met	Met	Cys	Gln	Leu	Gln	Gln	Phe	Asp	Leu	Trp	Val	Leu	Arg	Gly	Ile	225	230	235	240
Leu	Asn	Phe	Gly	Gly	Glu	Thr	Cys	Pro	Gly	Leu	Phe	Leu	Tyr	Thr	Lys	245	250	255	
Val	Glu	Asp	Tyr	Ser	Lys	Trp	Ile	Thr	Ser	Lys	Ala	Glu	Arg	Ala	Gly	260	265	270	
Pro	Pro	Leu	Ser	Ser	Leu	His	His	Trp	Glu	Lys	Leu	Ile	Ser	Phe	Ser	275	280	285	
His	His	Gly	Pro	Asn	Ala	Ala	Met	Thr	Gln	Lys	Thr	Tyr	Ser	Asp	Ser	290	295	300	
Glu	Leu	Gly	His	Val	Gly	Ser	Tyr	Leu	Gln	Gly	Gln	Arg	Arg	Thr	Ile	305	310	315	320
Thr	His	Ser	Arg	Leu	Gly	Asn	Ser	Ser	Arg	Asp	Ser	Leu	Asp	Val	Arg	325	330	335	
Glu	Lys	Asp	Val	Lys	Glu	Ser	Gly	Arg	Ser	Pro	Glu	Ala	Ser	Val	Gln	340	345	350	
Pro	Leu	Tyr	Tyr	Asp	Tyr	Tyr	Gly	Gly	Glu	Val	Gly	Glu	Gly	Arg	Ile	355	360	365	
Phe	Ala	Gly	Gln	Asn	Arg	Leu	Tyr	Gln	Pro	Glu	Glu	Ile	Ile	Leu	Val	370	375	380	
Ser	Phe	Val	Leu	Val	Phe	Phe	Cys	Ser	Ser	Ile	385	390	395						

<210> 32
 <211> 558
 <212> PRT
 <213> Mus musculus

<400> 32

Met	Ala	His	Ser	Glu	Glu	Gln	Ala	Ala	Val	Pro	Cys	Ala	Phe	Ile	Arg
1				5					10					15	
Gln	Asn	Ser	Gly	Asn	Ser	Ile	Ser	Leu	Asp	Phe	Glu	Pro	Asp	Thr	Glu
			20					25						30	
Tyr	Gln	Phe	Val	Glu	Gln	Leu	Glu	Glu	Arg	Tyr	Lys	Cys	Ala	Phe	Cys
		35					40					45			
His	Ser	Val	Leu	His	Asn	Pro	His	Gln	Thr	Gly	Cys	Gly	His	Arg	Phe
	50					55					60				
Cys	Gln	Gln	Cys	Ile	Arg	Ser	Leu	Arg	Glu	Leu	Asn	Ser	Val	Pro	Ile
65					70					75					80
Cys	Pro	Val	Asp	Lys	Glu	Val	Ile	Lys	Pro	Gln	Glu	Val	Phe	Lys	Asp
				85					90					95	
Asn	Cys	Cys	Lys	Arg	Glu	Val	Leu	Asn	Leu	His	Val	Tyr	Cys	Lys	Asn
			100					105					110		
Ala	Pro	Gly	Cys	Asn	Ala	Arg	Ile	Ile	Leu	Gly	Arg	Phe	Gln	Asp	His
		115					120					125			
Leu	Gln	His	Cys	Ser	Phe	Gln	Ala	Val	Pro	Cys	Pro	Asn	Glu	Ser	Cys
	130					135					140				
Arg	Glu	Ala	Met	Leu	Arg	Lys	Asp	Val	Lys	Glu	His	Leu	Ser	Ala	Tyr
145					150					155				160	
Cys	Arg	Phe	Arg	Glu	Glu	Lys	Cys	Leu	Tyr	Cys	Lys	Arg	Asp	Ile	Val
				165					170					175	
Val	Thr	Asn	Leu	Gln	Asp	His	Glu	Glu	Asn	Ser	Cys	Pro	Ala	Tyr	Pro
			180					185					190		
Val	Ser	Cys	Pro	Asn	Arg	Cys	Val	Gln	Thr	Ile	Pro	Arg	Ala	Arg	Val
		195					200					205			
Asn	Glu	His	Leu	Thr	Val	Cys	Pro	Glu	Ala	Glu	Gln	Asp	Cys	Pro	Phe

210		215		220	
Lys His Tyr Gly Cys Thr Val Lys Gly Lys Arg Gly Asn Leu Leu Glu					
225		230		235	240
His Glu Arg Ala Ala Leu Gln Asp His Met Leu Leu Val Leu Glu Lys					
	245		250		255
Asn Tyr Gln Leu Glu Gln Arg Ile Ser Asp Leu Tyr Gln Ser Leu Glu					
	260		265		270
Gln Lys Glu Ser Lys Ile Gln Gln Leu Ala Glu Thr Val Lys Lys Phe					
	275		280		285
Glu Lys Glu Leu Lys Gln Phe Thr Gln Met Phe Gly Arg Asn Gly Thr					
	290		295		300
Phe Leu Ser Asn Val Gln Ala Leu Thr Ser His Thr Asp Lys Ser Ala					
305		310		315	320
Trp Leu Glu Ala Gln Val Arg Gln Leu Leu Gln Ile Val Asn Gln Gln					
	325		330		335
Pro Ser Arg Leu Asp Leu Arg Ser Leu Val Asp Ala Val Asp Ser Val					
	340		345		350
Lys Gln Arg Ile Thr Gln Leu Glu Ala Ser Asp Gln Arg Leu Val Leu					
	355		360		365
Leu Glu Gly Glu Thr Ser Lys His Asp Ala His Ile Asn Ile His Lys					
	370		375		380
Ala Gln Leu Asn Lys Asn Glu Glu Arg Phe Lys Gln Leu Glu Gly Ala					
385		390		395	400
Cys Tyr Ser Gly Lys Leu Ile Trp Lys Val Thr Asp Tyr Arg Val Lys					
	405		410		415
Lys Arg Glu Ala Val Glu Gly His Thr Val Ser Val Phe Ser Gln Pro					
	420		425		430
Phe Tyr Thr Ser Arg Cys Gly Tyr Arg Leu Cys Ala Arg Ala Tyr Leu					
	435		440		445
Asn Gly Asp Gly Ser Gly Lys Gly Thr His Leu Ser Leu Tyr Phe Val					
	450		455		460
Val Met Arg Gly Glu Phe Asp Ser Leu Leu Gln Trp Pro Phe Arg Gln					

465		470		475		480
Arg Val Thr Leu Met Leu Leu Asp Gln Ser Gly Lys Lys Asn His Ile						
	485		490			495
Val Glu Thr Phe Lys Ala Asp Pro Asn Ser Ser Ser Phe Lys Arg Pro						
	500		505			510
Asp Gly Glu Met Asn Ile Ala Ser Gly Cys Pro Arg Phe Val Ser His						
	515		520			525
Ser Thr Leu Glu Asn Ser Lys Asn Thr Tyr Ile Lys Asp Asp Thr Leu						
	530		535			540
Phe Leu Lys Val Ala Val Asp Leu Thr Asp Leu Glu Asp Leu						
	545		550			555

<210> 33
 <211> 558
 <212> PRT
 <213> Mus musculus

<400> 33

Met Ala His Ser Glu Glu Gln Ala Ala Val Pro Cys Ala Phe Ile Arg														
1			5				10						15	
Gln Asn Ser Gly Asn Ser Ile Ser Leu Asp Phe Glu Pro Asp Thr Glu														
			20				25						30	
Tyr Gln Phe Val Glu Gln Leu Glu Glu Arg Tyr Lys Cys Ala Phe Cys														
			35				40						45	
His Ser Val Leu His Asn Pro His Gln Thr Gly Cys Gly His Arg Phe														
			50				55						60	
Cys Gln Gln Cys Ile Arg Ser Leu Arg Glu Leu Asn Ser Val Pro Ile														
			65				70						75	80
Cys Pro Val Asp Lys Glu Val Ile Lys Pro Gln Glu Val Phe Lys Asp														
			85				90						95	
Asn Cys Cys Lys Arg Glu Val Leu Asn Leu His Val Tyr Cys Lys Asn														
			100				105						110	
Ala Pro Gly Cys Asn Ala Arg Ile Ile Leu Gly Arg Phe Gln Asp His														
			115				120						125	

Leu	Gln	His	Cys	Ser	Phe	Gln	Ala	Val	Pro	Cys	Pro	Asn	Glu	Ser	Cys	
130						135					140					
Arg	Glu	Ala	Met	Leu	Arg	Lys	Asp	Val	Lys	Glu	His	Leu	Ser	Ala	Tyr	
145					150					155					160	
Cys	Arg	Phe	Arg	Glu	Glu	Lys	Cys	Leu	Tyr	Cys	Lys	Arg	Asp	Ile	Val	
				165					170					175		
Val	Thr	Asn	Leu	Gln	Asp	His	Glu	Glu	Asn	Ser	Cys	Pro	Ala	Tyr	Pro	
			180					185						190		
Val	Ser	Cys	Pro	Asn	Arg	Cys	Val	Gln	Thr	Ile	Pro	Arg	Ala	Arg	Val	
		195					200					205				
Asn	Glu	His	Leu	Thr	Val	Cys	Pro	Glu	Ala	Glu	Gln	Asp	Cys	Pro	Phe	
210						215					220					
Lys	His	Tyr	Gly	Cys	Thr	Val	Lys	Gly	Lys	Arg	Gly	Asn	Leu	Leu	Glu	
225					230					235					240	
His	Glu	Arg	Ala	Ala	Leu	Gln	Asp	His	Met	Leu	Leu	Val	Leu	Glu	Lys	
			245						250					255		
Asn	Tyr	Gln	Leu	Glu	Gln	Arg	Ile	Ser	Asp	Leu	Tyr	Gln	Ser	Leu	Glu	
		260						265					270			
Gln	Lys	Glu	Ser	Lys	Ile	Gln	Gln	Leu	Ala	Glu	Thr	Val	Lys	Lys	Phe	
	275						280					285				
Glu	Lys	Glu	Leu	Lys	Gln	Phe	Thr	Gln	Met	Phe	Gly	Arg	Asn	Gly	Thr	
290						295					300					
Phe	Leu	Ser	Asn	Val	Gln	Ala	Leu	Thr	Ser	His	Thr	Asp	Lys	Ser	Ala	
305					310					315					320	
Trp	Leu	Glu	Ala	Gln	Val	Arg	His	Leu	Leu	Gln	Ile	Val	Asn	Gln	Gln	
			325						330					335		
Pro	Ser	Arg	Leu	Asp	Leu	Arg	Ser	Leu	Val	Asp	Ala	Val	Asp	Ser	Val	
			340					345					350			
Lys	Gln	Arg	Ile	Thr	Gln	Leu	Glu	Ala	Ser	Asp	Gln	Arg	Leu	Val	Leu	
	355						360				365					
Leu	Glu	Gly	Glu	Thr	Ser	Lys	His	Asp	Ala	His	Ile	Asn	Ile	His	Lys	
370						375					380					

Ala Gln Leu Asn Lys Asn Glu Glu Arg Phe Lys Gln Leu Glu Gly Ala
385 390 395 400

Cys Tyr Ser Gly Lys Leu Ile Trp Lys Val Thr Asp Tyr Arg Val Lys
405 410 415

Lys Arg Glu Ala Val Glu Gly His Thr Val Ser Val Phe Ser Gln Pro
420 425 430

Phe Tyr Thr Ser Arg Cys Gly Tyr Arg Leu Cys Ala Arg Ala Tyr Leu
435 440 445

Asn Gly Asp Gly Ser Gly Lys Gly Thr His Leu Ser Leu Tyr Phe Val
450 455 460

Val Met Arg Gly Glu Phe Asp Ser Leu Leu Gln Trp Pro Phe Arg Gln
465 470 475 480

Arg Val Thr Leu Met Leu Leu Asp Gln Ser Gly Lys Lys Asn His Ile
485 490 495

Val Glu Thr Phe Lys Ala Asp Pro Asn Ser Ser Ser Phe Lys Arg Pro
500 505 510

Asp Gly Glu Met Asn Ile Ala Ser Gly Cys Pro Arg Phe Val Ser His
515 520 525

Ser Thr Leu Glu Asn Ser Lys Asn Thr Tyr Ile Lys Asp Asp Thr Leu
530 535 540

Phe Leu Lys Val Ala Val Asp Leu Thr Asp Leu Glu Asp Leu
545 550 555

<210> 34

<211> 557

<212> PRT

<213> Homo sapiens

<400> 34

Met Ala Tyr Ser Glu Glu His Lys Gly Met Pro Cys Gly Phe Ile Arg
1 5 10 15

Gln Asn Ser Gly Asn Ser Ile Ser Leu Asp Phe Glu Pro Ser Ile Glu
20 25 30

Tyr Gln Phe Val Glu Arg Leu Glu Glu Arg Tyr Lys Cys Ala Phe Cys
35 40 45

His	Ser	Val	Leu	His	Asn	Pro	His	Gln	Thr	Gly	Cys	Gly	His	Arg	Phe	50	55	60	
Cys	Gln	His	Cys	Ile	Leu	Ser	Leu	Arg	Glu	Leu	Asn	Thr	Val	Pro	Ile	65	70	75	80
Cys	Pro	Val	Asp	Lys	Glu	Val	Ile	Lys	Ser	Gln	Glu	Val	Phe	Lys	Asp	85	90	95	
Asn	Cys	Cys	Lys	Arg	Glu	Val	Leu	Asn	Leu	Tyr	Val	Tyr	Cys	Ser	Asn	100	105	110	
Ala	Pro	Gly	Cys	Asn	Ala	Lys	Val	Ile	Leu	Gly	Arg	Tyr	Gln	Asp	His	115	120	125	
Leu	Gln	Gln	Cys	Leu	Phe	Gln	Pro	Val	Gln	Cys	Ser	Asn	Glu	Lys	Cys	130	135	140	
Arg	Glu	Pro	Val	Leu	Arg	Lys	Asp	Leu	Lys	Glu	His	Leu	Ser	Ala	Ser	145	150	155	160
Cys	Gln	Phe	Arg	Lys	Glu	Lys	Cys	Leu	Tyr	Cys	Lys	Lys	Asp	Val	Val	165	170	175	
Val	Ile	Asn	Leu	Gln	Asn	His	Glu	Glu	Asn	Leu	Cys	Pro	Glu	Tyr	Pro	180	185	190	
Val	Phe	Cys	Pro	Asn	Asn	Cys	Ala	Lys	Ile	Ile	Leu	Lys	Thr	Glu	Val	195	200	205	
Asp	Glu	His	Leu	Ala	Val	Cys	Pro	Glu	Ala	Glu	Gln	Asp	Cys	Pro	Phe	210	215	220	
Lys	His	Tyr	Gly	Cys	Ala	Val	Thr	Asp	Lys	Arg	Arg	Asn	Leu	Gln	Gln	225	230	235	240
His	Glu	His	Ser	Ala	Leu	Arg	Glu	His	Met	Arg	Leu	Val	Leu	Glu	Lys	245	250	255	
Asn	Val	Gln	Leu	Glu	Glu	Gln	Ile	Ser	Asp	Leu	His	Lys	Ser	Leu	Glu	260	265	270	
Gln	Lys	Glu	Ser	Lys	Ile	Gln	Gln	Leu	Ala	Glu	Thr	Ile	Lys	Lys	Leu	275	280	285	
Glu	Lys	Glu	Phe	Lys	Gln	Phe	Ala	Gln	Leu	Phe	Gly	Lys	Asn	Gly	Ser	290	295	300	

Phe	Leu	Pro	Asn	Ile	Gln	Val	Phe	Ala	Ser	His	Ile	Asp	Lys	Ser	Ala	305	310	315	320
Trp	Leu	Glu	Ala	Gln	Val	His	Gln	Leu	Leu	Gln	Met	Val	Asn	Gln	Gln	325	330	335	
Gln	Asn	Lys	Phe	Asp	Leu	Arg	Pro	Leu	Met	Glu	Ala	Val	Asp	Thr	Val	340	345	350	
Lys	Gln	Lys	Ile	Thr	Leu	Leu	Glu	Asn	Asn	Asp	Gln	Arg	Leu	Ala	Val	355	360	365	
Leu	Glu	Glu	Glu	Thr	Asn	Lys	His	Asp	Thr	His	Ile	Asn	Ile	His	Lys	370	375	380	
Ala	Gln	Leu	Ser	Lys	Asn	Glu	Glu	Arg	Phe	Lys	Leu	Leu	Glu	Gly	Thr	385	390	395	400
Cys	Tyr	Asn	Gly	Lys	Leu	Ile	Trp	Lys	Val	Thr	Asp	Tyr	Lys	Met	Lys	405	410	415	
Lys	Arg	Glu	Ala	Val	Asp	Gly	His	Thr	Val	Ser	Ile	Phe	Ser	Gln	Ser	420	425	430	
Phe	Tyr	Thr	Ser	Arg	Cys	Gly	Tyr	Arg	Leu	Cys	Ala	Arg	Ala	Tyr	Leu	435	440	445	
Asn	Gly	Asp	Gly	Ser	Gly	Arg	Gly	Ser	His	Leu	Ser	Leu	Tyr	Phe	Val	450	455	460	
Val	Met	Arg	Gly	Glu	Phe	Asp	Ser	Leu	Leu	Gln	Trp	Pro	Phe	Arg	Gln	465	470	475	480
Arg	Val	Thr	Leu	Met	Leu	Leu	Asp	Gln	Ser	Gly	Lys	Lys	Asn	Ile	Met	485	490	495	
Glu	Thr	Phe	Lys	Pro	Asp	Pro	Asn	Ser	Ser	Ser	Phe	Lys	Arg	Pro	Asp	500	505	510	
Gly	Glu	Met	Asn	Ile	Ala	Ser	Gly	Cys	Pro	Arg	Phe	Val	Ala	His	Ser	515	520	525	
Val	Leu	Glu	Asn	Ala	Lys	Asn	Ala	Tyr	Ile	Lys	Asp	Asp	Thr	Leu	Phe	530	535	540	
Leu	Lys	Val	Ala	Val	Asp	Leu	Thr	Asp	Leu	Glu	Asp	Leu	545	550	555				

<210> 35
 <211> 543
 <212> PRT
 <213> Homo sapiens

<400> 35

Met	Glu	Ser	Ser	Lys	Lys	Met	Asp	Ser	Pro	Gly	Ala	Leu	Gln	Thr	Asn
1				5					10					15	
Pro	Pro	Leu	Lys	Leu	His	Thr	Asp	Arg	Ser	Ala	Gly	Thr	Pro	Val	Phe
			20					25					30		
Val	Pro	Glu	Gln	Gly	Gly	Tyr	Lys	Glu	Lys	Phe	Val	Lys	Thr	Val	Glu
		35					40					45			
Asp	Lys	Tyr	Lys	Cys	Glu	Lys	Cys	His	Leu	Val	Leu	Cys	Ser	Pro	Lys
	50						55				60				
Gln	Thr	Glu	Cys	Gly	His	Arg	Phe	Cys	Glu	Ser	Cys	Met	Ala	Ala	Leu
65					70					75					80
Leu	Ser	Ser	Ser	Ser	Pro	Lys	Cys	Thr	Ala	Cys	Gln	Glu	Ser	Ile	Val
				85					90					95	
Lys	Asp	Lys	Val	Phe	Lys	Asp	Asn	Cys	Cys	Lys	Arg	Glu	Ile	Leu	Ala
			100					105					110		
Leu	Gln	Ile	Tyr	Cys	Arg	Asn	Glu	Ser	Arg	Gly	Cys	Ala	Glu	Gln	Leu
		115					120					125			
Thr	Leu	Gly	His	Leu	Leu	Val	His	Leu	Lys	Asn	Asp	Cys	His	Phe	Glu
	130					135					140				
Glu	Leu	Pro	Cys	Val	Arg	Pro	Asp	Cys	Lys	Glu	Lys	Val	Leu	Arg	Lys
145					150					155					160
Asp	Leu	Arg	Asp	His	Val	Glu	Lys	Ala	Cys	Lys	Tyr	Arg	Glu	Ala	Thr
				165					170					175	
Cys	Ser	His	Cys	Lys	Ser	Gln	Val	Pro	Met	Ile	Ala	Leu	Gln	Lys	His
			180					185					190		
Glu	Asp	Thr	Asp	Cys	Pro	Cys	Val	Val	Val	Ser	Cys	Pro	His	Lys	Cys
	195						200					205			
Ser	Val	Gln	Thr	Leu	Leu	Arg	Ser	Glu	Gly	Thr	Asn	Gln	Gln	Ile	Lys

210		215		220
Ala His Glu Ala Ser Ser Ala Val Gln His Val Asn Leu Leu Lys Glu				
225		230		240
Trp Ser Asn Ser Leu Glu Lys Lys Val Ser Leu Leu Gln Asn Glu Ser				
	245		250	255
Val Glu Lys Asn Lys Ser Ile Gln Ser Leu His Asn Gln Ile Cys Ser				
	260		265	270
Phe Glu Ile Glu Ile Glu Arg Gln Lys Glu Met Leu Arg Asn Asn Glu				
	275		280	285
Ser Lys Ile Leu His Leu Gln Arg Val Ile Asp Ser Gln Ala Glu Lys				
	290		295	300
Leu Lys Glu Leu Asp Lys Glu Ile Arg Ser Phe Arg Gln Asn Trp Glu				
305		310		320
Glu Ala Asp Ser Met Lys Ser Ser Val Glu Ser Leu Gln Asn Arg Val				
	325		330	335
Thr Glu Leu Glu Ser Val Asp Lys Ser Ala Gly Gln Val Ala Arg Asn				
	340		345	350
Thr Gly Leu Leu Glu Ser Gln Leu Ser Arg His Asp Gln Met Leu Ser				
	355		360	365
Val His Asp Ile Arg Leu Ala Asp Met Asp Leu Arg Phe Gln Val Leu				
	370		375	380
Glu Thr Ala Ser Tyr Asn Gly Val Leu Ile Trp Lys Ile Arg Asp Tyr				
385		390		400
Lys Arg Arg Lys Gln Glu Ala Val Met Gly Lys Thr Leu Ser Leu Tyr				
	405		410	415
Ser Gln Pro Phe Tyr Thr Gly Tyr Phe Gly Tyr Lys Met Cys Ala Arg				
	420		425	430
Val Tyr Leu Asn Gly Asp Gly Met Gly Lys Gly Thr His Leu Ser Leu				
	435		440	445
Phe Phe Val Ile Met Arg Gly Glu Tyr Asp Ala Leu Leu Pro Trp Pro				
	450		455	460
Phe Lys Gln Lys Val Thr Leu Met Leu Met Asp Gln Gly Ser Ser Arg				

Glu	Leu	Pro	Cys	Val	Arg	Pro	Asp	Cys	Lys	Glu	Lys	Val	Leu	Arg	Lys	145	150	155	160
Asp	Leu	Arg	Asp	His	Val	Glu	Lys	Ala	Cys	Lys	Tyr	Arg	Glu	Ala	Thr	165	170	175	
Cys	Ser	His	Cys	Lys	Ser	Gln	Val	Pro	Met	Ile	Ala	Leu	Gln	Lys	His	180	185	190	
Glu	Asp	Thr	Asp	Cys	Pro	Cys	Val	Val	Val	Ser	Cys	Pro	His	Lys	Cys	195	200	205	
Ser	Val	Gln	Thr	Leu	Leu	Arg	Ser	Glu	Leu	Ser	Ala	His	Leu	Ser	Glu	210	215	220	
Cys	Val	Asn	Ala	Pro	Ser	Thr	Cys	Ser	Phe	Lys	Arg	Tyr	Gly	Cys	Val	225	230	235	240
Phe	Gln	Gly	Thr	Asn	Gln	Gln	Ile	Lys	Ala	His	Glu	Ala	Ser	Ser	Ala	245	250	255	
Val	Gln	His	Val	Asn	Leu	Leu	Lys	Glu	Trp	Ser	Asn	Ser	Leu	Glu	Lys	260	265	270	
Lys	Val	Ser	Leu	Leu	Gln	Asn	Glu	Ser	Val	Glu	Lys	Asn	Lys	Ser	Ile	275	280	285	
Gln	Ser	Leu	His	Asn	Gln	Ile	Cys	Ser	Phe	Glu	Ile	Glu	Ile	Glu	Arg	290	295	300	
Gln	Lys	Glu	Met	Leu	Arg	Asn	Asn	Glu	Ser	Lys	Ile	Leu	His	Leu	Gln	305	310	315	320
Arg	Val	Ile	Asp	Ser	Gln	Ala	Glu	Lys	Leu	Lys	Glu	Leu	Asp	Lys	Glu	325	330	335	
Ile	Arg	Pro	Phe	Arg	Gln	Asn	Trp	Glu	Glu	Ala	Asp	Ser	Met	Lys	Ser	340	345	350	
Ser	Val	Glu	Ser	Leu	Gln	Asn	Arg	Val	Thr	Glu	Leu	Glu	Ser	Val	Asp	355	360	365	
Lys	Ser	Ala	Gly	Gln	Val	Ala	Arg	Asn	Thr	Gly	Leu	Leu	Glu	Ser	Gln	370	375	380	
Leu	Ser	Arg	His	Asp	Gln	Met	Leu	Ser	Val	His	Asp	Ile	Arg	Leu	Ala	385	390	395	400

Asp Met Asp Leu Arg Phe Gln Val Leu Glu Thr Ala Ser Tyr Asn Gly
 405 410 415
 Val Leu Ile Trp Lys Ile Arg Asp Tyr Lys Arg Arg Lys Gln Glu Ala
 420 425 430
 Val Met Gly Lys Thr Leu Ser Leu Tyr Ser Gln Pro Phe Tyr Thr Gly
 435 440 445
 Tyr Phe Gly Tyr Lys Met Cys Ala Arg Val Tyr Leu Asn Gly Asp Gly
 450 455 460
 Met Gly Lys Gly Thr His Leu Ser Leu Phe Phe Val Ile Met Arg Gly
 465 470 475 480
 Glu Tyr Asp Ala Leu Leu Pro Trp Pro Phe Lys Gln Lys Val Thr Leu
 485 490 495
 Met Leu Met Asp Gln Gly Ser Ser Arg Arg His Leu Gly Asp Ala Phe
 500 505 510
 Lys Pro Asp Pro Asn Ser Ser Ser Phe Lys Lys Pro Thr Gly Glu Met
 515 520 525
 Asn Ile Ala Ser Gly Cys Pro Val Phe Val Ala Gln Thr Val Leu Glu
 530 535 540
 Asn Gly Thr Tyr Ile Lys Asp Asp Thr Ile Phe Ile Lys Val Ile Val
 545 550 555 560
 Asp Thr Ser Asp Leu Pro Asp Pro
 565

<210> 37

<211> 159

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MATH domain
sequence

<400> 37

Thr Ile Lys Asn Phe Ser Lys Ile Lys Glu Glu Ala Lys Glu Gly Arg
 1 5 10 15

Glu Gly Glu Glu Tyr Tyr Thr Ser Pro Val Glu Glu Arg Phe Asn Ile

20	25	30
Pro Trp Arg Leu Asn Val Leu Arg Ile Tyr Arg Asn Gly Gly Gly Glu		
35	40	45
Gly Arg Ser Gly Lys Phe Leu Gly Leu Tyr Leu His Cys Leu Lys Glu		
50	55	60
Glu Lys Asp Ser Pro Thr Ile Glu Asn Leu Lys Trp Ser Ile Glu Thr		
65	70	75 80
Glu Phe Thr Leu Lys Leu Val Ser Asp Asn Gly Lys Ser Ile Arg Arg		
85	90	95
Met Ser Ser Thr Thr Leu Thr Lys Lys Thr Lys Asp Ala Lys Asn Asn		
100	105	110
Ser His Val Phe Glu Lys Pro Thr Gly Glu Gly Trp Gly Lys Ser Gly		
115	120	125
Phe Lys Lys Phe Ile Ser Trp Asp Asp Leu Glu Asp Asp Tyr Asn Gly		
130	135	140
Tyr Leu Val Asp Asp Ser Ile Ile Ile Glu Ala Glu Val Lys Ile		
145	150	155

<210> 38
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 38

Lys Val Thr Asp Tyr Lys Met Lys Lys Arg Glu Ala Val Asp Gly His
1 5 10 15
Thr Val Ser Ile Phe Ser Gln Ser Phe Tyr Thr Ser Arg Cys Gly Tyr
20 25 30
Arg Leu Cys Ala Arg Ala Tyr Leu Asn Gly Asp Gly Ser Gly Arg Gly
35 40 45
Ser His Leu Ser Leu Tyr Phe Val Val Met Arg Gly Glu Phe Asp Ser
50 55 60
Leu Leu Gln Trp Pro Phe Arg Gln Arg Val Thr Leu Met Leu Leu Asp
65 70 75 80

Gln Ser Gly Lys Lys Asn Ile Met Glu Thr Phe Lys Pro Asp Pro Asn
85 90 95

Ser Ser Ser Phe Lys Arg Pro Asp Gly Glu Met Asn Ile Ala Ser Gly
100 105 110

Cys Pro Arg Phe Val Ala His Ser Val Leu Glu Asn Ala Lys Asn Ala
115 120 125

Tyr Ile Lys Asp Asp Thr Leu Phe Leu Lys Val Ala Val Asp Leu
130 135 140

<210> 39

<211> 700

<212> PRT

<213> Homo sapiens

<400> 39

Leu Thr Asp Asn Phe Ile Ala Ala Val Arg Arg Arg Asp Phe Ala Asn
1 5 10 15

Met Thr Ser Leu Val His Leu Thr Leu Ser Arg Asn Thr Ile Gly Gln
20 25 30

Val Ala Ala Gly Ala Phe Ala Asp Leu Arg Ala Leu Arg Ala Leu His
35 40 45

Leu Asp Ser Asn Arg Leu Ala Glu Val Arg Gly Asp Gln Leu Arg Gly
50 55 60

Leu Gly Asn Leu Arg His Leu Ile Leu Gly Asn Asn Gln Ile Arg Arg
65 70 75 80

Val Glu Ser Ala Ala Phe Asp Ala Phe Leu Ser Thr Val Glu Asp Leu
85 90 95

Asp Leu Ser Tyr Asn Asn Leu Glu Ala Leu Pro Trp Glu Ala Val Gly
100 105 110

Gln Met Val Asn Leu Asn Thr Leu Thr Leu Asp His Asn Leu Ile Asp
115 120 125

His Ile Ala Glu Gly Thr Phe Val Gln Leu His Lys Leu Val Arg Leu
130 135 140

Asp Met Thr Ser Asn Arg Leu His Lys Leu Pro Pro Asp Gly Leu Phe
145 150 155 160

Leu	Arg	Ser	Gln	Gly	Thr	Gly	Pro	Lys	Pro	Pro	Thr	Pro	Leu	Thr	Val	165	170	175	
Ser	Phe	Gly	Gly	Asn	Pro	Leu	His	Cys	Asn	Cys	Glu	Leu	Leu	Trp	Leu	180	185	190	
Arg	Arg	Leu	Thr	Arg	Glu	Asp	Asp	Leu	Glu	Thr	Cys	Ala	Thr	Pro	Glu	195	200	205	
His	Leu	Thr	Asp	Arg	Tyr	Phe	Trp	Ser	Ile	Pro	Glu	Glu	Glu	Phe	Leu	210	215	220	
Cys	Glu	Pro	Pro	Leu	Ile	Thr	Arg	Gln	Ala	Gly	Gly	Arg	Ala	Leu	Val	225	230	235	240
Val	Glu	Gly	Gln	Ala	Val	Ser	Leu	Arg	Cys	Arg	Ala	Val	Gly	Asp	Pro	245	250	255	
Glu	Pro	Val	Val	His	Trp	Val	Ala	Pro	Asp	Gly	Arg	Leu	Leu	Gly	Asn	260	265	270	
Ser	Ser	Arg	Thr	Arg	Val	Arg	Gly	Asp	Gly	Thr	Leu	Asp	Val	Thr	Ile	275	280	285	
Thr	Thr	Leu	Arg	Asp	Ser	Gly	Thr	Phe	Thr	Cys	Ile	Ala	Ser	Asn	Ala	290	295	300	
Ala	Gly	Glu	Ala	Thr	Ala	Pro	Val	Glu	Val	Cys	Val	Val	Pro	Leu	Pro	305	310	315	320
Leu	Met	Ala	Pro	Pro	Pro	Ala	Ala	Pro	Pro	Pro	Leu	Thr	Glu	Pro	Gly	325	330	335	
Ser	Ser	Asp	Ile	Ala	Thr	Pro	Gly	Arg	Pro	Gly	Ala	Asn	Asp	Ser	Ala	340	345	350	
Ala	Glu	Arg	Arg	Leu	Val	Ala	Ala	Glu	Leu	Thr	Ser	Asn	Ser	Val	Leu	355	360	365	
Ile	Arg	Trp	Pro	Ala	Gln	Arg	Pro	Val	Pro	Gly	Ile	Arg	Met	Tyr	Gln	370	375	380	
Val	Gln	Tyr	Asn	Ser	Ser	Val	Asp	Asp	Ser	Leu	Val	Tyr	Arg	Met	Ile	385	390	395	400
Pro	Ser	Thr	Ser	Gln	Thr	Phe	Leu	Val	Asn	Asp	Leu	Ala	Ala	Gly	Arg	405	410	415	

Ala Tyr Asp Leu Cys Val Leu Ala Val Tyr Asp Asp Gly Ala Thr Ala
 420 425 430

Leu Pro Ala Thr Arg Val Val Gly Cys Val Gln Phe Thr Thr Ala Gly
 435 440 445

Asp Pro Ala Pro Cys Arg Pro Leu Arg Ala His Phe Leu Gly Gly Thr
 450 455 460

Met Ile Ile Ala Ile Gly Gly Val Ile Val Ala Ser Val Leu Val Phe
 465 470 475 480

Ile Val Leu Leu Met Ile Arg Tyr Lys Val Tyr Gly Asp Gly Asp Ser
 485 490 495

Arg Arg Val Lys Gly Ser Arg Ser Leu Pro Arg Val Ser His Val Cys
 500 505 510

Ser Gln Thr Asn Gly Ala Gly Thr Gly Ala Ala Gln Ala Pro Ala Leu
 515 520 525

Pro Ala Gln Asp His Tyr Glu Ala Leu Arg Glu Val Glu Ser Gln Ala
 530 535 540

Ala Pro Ala Val Ala Val Glu Ala Lys Ala Met Glu Ala Glu Thr Ala
 545 550 555 560

Ser Ala Glu Pro Glu Val Val Leu Gly Arg Ser Leu Gly Gly Ser Ala
 565 570 575

Thr Ser Leu Cys Leu Leu Pro Ser Glu Glu Thr Ser Gly Glu Glu Ser
 580 585 590

Arg Ala Ala Val Gly Pro Arg Arg Ser Arg Ser Gly Ala Leu Glu Pro
 595 600 605

Pro Thr Ser Ala Pro Pro Thr Leu Ala Leu Val Pro Gly Gly Ala Ala
 610 615 620

Ala Arg Pro Arg Pro Gln Gln Arg Tyr Ser Phe Asp Gly Asp Tyr Gly
 625 630 635 640

Ala Leu Phe Gln Ser His Ser Tyr Pro Arg Arg Ala Arg Arg Thr Lys
 645 650 655

Arg His Arg Ser Thr Pro His Leu Asp Gly Ala Gly Gly Gly Ala Ala
 660 665 670

Gly Glu Asp Gly Asp Leu Gly Leu Gly Ser Ala Arg Ala Cys Leu Ala
675 680 685

Phe Thr Ser Thr Glu Trp Met Leu Glu Ser Thr Val
690 695 700

<210> 40
<211> 492
<212> PRT
<213> Mus musculus

<400> 40
Met Ala Pro Gly Pro Phe Ser Ser Arg Leu Phe Ser Pro Pro Pro Ala
1 5 10 15

Ala Leu Pro Phe Leu Leu Leu Leu Trp Ala Gly Ala Ser Arg Ser Gln
20 25 30

Pro Cys Pro Gly Arg Cys Ile Cys Gln Asn Val Ala Pro Thr Leu Thr
35 40 45

Met Leu Cys Ala Lys Thr Gly Leu Leu Phe Val Pro Pro Ala Ile Asp
50 55 60

Arg Arg Val Val Glu Leu Arg Leu Thr Asp Asn Phe Ile Ala Ala Val
65 70 75 80

Arg Arg Arg Asp Phe Ala Asn Met Thr Ser Leu Val His Leu Thr Leu
85 90 95

Ser Arg Asn Thr Ile Gly Gln Val Ala Ala Gly Ala Phe Ala Asp Leu
100 105 110

Arg Ala Leu Arg Ala Leu His Leu Asp Ser Asn Arg Leu Ala Glu Val
115 120 125

Arg Gly Asp Gln Leu Arg Gly Leu Gly Asn Leu Arg His Leu Ile Leu
130 135 140

Gly Asn Asn Gln Ile Arg Lys Val Glu Ser Ala Ala Phe Asp Ala Phe
145 150 155 160

Leu Ser Thr Val Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu Ala
165 170 175

Leu Pro Trp Glu Ala Val Gly Gln Met Val Asn Leu Asn Thr Leu Thr

180	185	190
Leu Asp His Asn Leu Ile Asp His Ile Ala Glu Gly Thr Phe Val Gln		
195	200	205
Leu His Lys Leu Val Arg Leu Asp Met Thr Ser Asn Arg Leu His Lys		
210	215	220
Leu Pro Pro Asp Gly Leu Phe Leu Arg Ser Gln Gly Gly Gly Pro Lys		
225	230	235 240
Pro Pro Thr Pro Leu Thr Val Ser Phe Gly Gly Asn Pro Leu His Cys		
	245	250 255
Asn Cys Glu Leu Leu Trp Leu Arg Arg Leu Thr Arg Glu Asp Asp Leu		
	260	265 270
Glu Thr Cys Ala Thr Pro Glu His Leu Thr Asp Arg Tyr Phe Trp Ser		
	275	280 285
Ile Pro Glu Glu Glu Phe Leu Cys Glu Pro Pro Leu Ile Thr Arg Gln		
	290	295 300
Ala Gly Gly Arg Ala Leu Val Val Glu Gly Gln Ala Val Ser Leu Arg		
305	310	315 320
Cys Arg Ala Val Gly Asp Pro Glu Pro Val Val His Trp Val Ala Pro		
	325	330 335
Asp Gly Arg Leu Leu Gly Asn Ser Ser Arg Thr Arg Val Arg Gly Asp		
	340	345 350
Gly Thr Leu Asp Val Thr Ile Thr Thr Leu Arg Asp Ser Gly Thr Phe		
	355	360 365
Thr Cys Ile Ala Ser Asn Ala Ala Gly Glu Ala Thr Ala Pro Val Glu		
	370	375 380
Val Cys Val Val Pro Leu Pro Leu Met Ala Pro Pro Pro Ala Ala Pro		
385	390	395 400
Pro Pro Leu Thr Glu Pro Gly Ser Ser Asp Ile Ala Thr Pro Gly Arg		
	405	410 415
Pro Gly Ala Asn Asp Ser Ala Thr Glu Arg Arg Leu Val Ala Ala Glu		
	420	425 430
Leu Thr Ser Ser Ser Val Leu Ile Arg Trp Pro Ala Gln Arg Pro Val		

435 440 445
 Pro Gly Ile Arg Met Tyr Gln Val Gln Tyr Asn Ser Ser Ala Asp Asp
 450 455 460
 Ser Leu Val Tyr Ser Ser Ser Cys Pro Gly Thr His Tyr Val Asp Gln
 465 470 475 480
 Asp Gly Leu Glu Ile Arg Val Pro Leu Ala Ser Ala
 485 490

<210> 41
 <211> 832
 <212> PRT
 <213> Homo sapiens

<400> 41
 Leu Glu Ser Val Ser Gly Gly Glu Gly Cys Val Ala Glu Pro Gly Ser
 1 5 10 15
 Pro Gly Ala Pro Arg Ser Arg Pro Arg Cys His Pro Ala Gly Gly Arg
 20 25 30
 Cys Cys Leu Ala Gln Ala Leu Ser Asp Gln Thr Met Glu Thr Leu Leu
 35 40 45
 Gly Gly Leu Leu Ala Phe Gly Met Ala Phe Ala Val Val Asp Ala Cys
 50 55 60
 Pro Lys Tyr Cys Val Cys Gln Asn Leu Ser Glu Ser Leu Gly Thr Leu
 65 70 75 80
 Cys Pro Ser Lys Gly Leu Leu Phe Val Pro Pro Asp Ile Asp Arg Arg
 85 90 95
 Thr Val Glu Leu Arg Leu Gly Gly Asn Phe Ile Ile His Ile Ser Arg
 100 105 110
 Gln Asp Phe Ala Asn Met Thr Gly Leu Val Asp Leu Thr Leu Ser Arg
 115 120 125
 Asn Thr Ile Ser His Ile Gln Pro Phe Ser Phe Leu Asp Leu Glu Ser
 130 135 140
 Leu Arg Ser Leu His Leu Asp Ser Asn Arg Leu Pro Ser Leu Gly Glu
 145 150 155 160

Asp	Thr	Leu	Arg	Gly	Leu	Val	Asn	Leu	Gln	His	Leu	Ile	Val	Asn	Asn	165	170	175	
Asn	Gln	Leu	Gly	Gly	Ile	Ala	Asp	Glu	Ala	Phe	Glu	Asp	Phe	Leu	Leu	180	185	190	
Thr	Leu	Glu	Asp	Leu	Asp	Leu	Ser	Tyr	Asn	Asn	Leu	His	Gly	Leu	Pro	195	200	205	
Trp	Asp	Ser	Val	Arg	Arg	Met	Val	Asn	Leu	His	Gln	Leu	Ser	Leu	Asp	210	215	220	
His	Asn	Leu	Leu	Asp	His	Ile	Ala	Glu	Gly	Thr	Phe	Ala	Asp	Leu	Gln	225	230	235	240
Lys	Leu	Ala	Arg	Leu	Asp	Leu	Thr	Ser	Asn	Arg	Leu	Gln	Lys	Leu	Pro	245	250	255	
Pro	Asp	Pro	Ile	Phe	Ala	Arg	Ser	Gln	Ala	Ser	Ala	Leu	Thr	Ala	Thr	260	265	270	
Pro	Phe	Ala	Pro	Pro	Leu	Ser	Phe	Ser	Phe	Gly	Gly	Asn	Pro	Leu	His	275	280	285	
Cys	Asn	Cys	Glu	Leu	Leu	Trp	Leu	Arg	Arg	Leu	Glu	Arg	Asp	Asp	Asp	290	295	300	
Leu	Glu	Thr	Cys	Gly	Ser	Pro	Gly	Gly	Leu	Lys	Gly	Arg	Tyr	Phe	Trp	305	310	315	320
His	Val	Arg	Glu	Glu	Glu	Phe	Val	Cys	Glu	Pro	Pro	Leu	Ile	Thr	Gln	325	330	335	
His	Thr	His	Lys	Leu	Leu	Val	Leu	Glu	Gly	Gln	Ala	Ala	Thr	Leu	Lys	340	345	350	
Cys	Lys	Ala	Ile	Gly	Asp	Pro	Ser	Pro	Leu	Ile	His	Trp	Val	Ala	Pro	355	360	365	
Asp	Asp	Arg	Leu	Val	Gly	Asn	Ser	Ser	Arg	Thr	Ala	Val	Tyr	Asp	Asn	370	375	380	
Gly	Thr	Leu	Asp	Ile	Phe	Ile	Thr	Thr	Ser	Gln	Asp	Ser	Gly	Ala	Phe	385	390	395	400
Thr	Cys	Ile	Ala	Ala	Asn	Ala	Ala	Gly	Glu	Ala	Thr	Ala	Met	Val	Glu	405	410	415	

Val	Ser	Ile	Val	Gln	Leu	Pro	His	Leu	Ser	Asn	Ser	Thr	Ser	Arg	Thr	420	425	430	
Ala	Pro	Pro	Lys	Ser	Arg	Leu	Ser	Asp	Ile	Thr	Gly	Ser	Ser	Lys	Thr	435	440	445	
Ser	Arg	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Glu	Pro	Pro	Lys	Ser	Pro	450	455	460	
Pro	Glu	Arg	Ala	Val	Leu	Val	Ser	Glu	Val	Thr	Thr	Thr	Ser	Ala	Leu	465	470	475	480
Val	Lys	Trp	Ser	Val	Ser	Lys	Ser	Ala	Pro	Arg	Val	Lys	Met	Tyr	Gln	485	490	495	
Leu	Gln	Tyr	Asn	Cys	Ser	Asp	Asp	Glu	Val	Leu	Ile	Tyr	Arg	Met	Ile	500	505	510	
Pro	Ala	Ser	Asn	Lys	Ala	Phe	Val	Val	Asn	Asn	Leu	Val	Ser	Gly	Thr	515	520	525	
Gly	Tyr	Asp	Leu	Cys	Val	Leu	Ala	Met	Trp	Asp	Asp	Thr	Ala	Thr	Thr	530	535	540	
Leu	Thr	Ala	Thr	Asn	Ile	Val	Gly	Cys	Ala	Gln	Phe	Phe	Thr	Lys	Ala	545	550	555	560
Asp	Tyr	Pro	Gln	Cys	Gln	Ser	Met	His	Ser	Gln	Ile	Leu	Gly	Gly	Thr	565	570	575	
Met	Ile	Leu	Val	Ile	Gly	Gly	Ile	Ile	Val	Ala	Thr	Leu	Leu	Val	Phe	580	585	590	
Ile	Val	Ile	Leu	Met	Val	Arg	Tyr	Lys	Val	Cys	Asn	His	Glu	Ala	Pro	595	600	605	
Ser	Lys	Met	Ala	Ala	Ala	Val	Ser	Asn	Val	Tyr	Ser	Gln	Thr	Asn	Gly	610	615	620	
Ala	Gln	Pro	Pro	Pro	Pro	Ser	Ser	Ala	Pro	Ala	Gly	Ala	Pro	Pro	Gln	625	630	635	640
Gly	Pro	Pro	Lys	Val	Val	Val	Arg	Asn	Glu	Leu	Leu	Asp	Phe	Thr	Ala	645	650	655	
Ser	Leu	Ala	Arg	Ala	Ser	Asp	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Gly	Ser	660	665	670	

Gly Glu Ala Ala Gly Leu Gly Arg Ala Pro Trp Arg Ile Pro Pro Ser
 675 680 685
 Ala Pro Arg Pro Lys Pro Ser Leu Asp Arg Leu Met Gly Ala Phe Ala
 690 695 700
 Ser Leu Asp Leu Lys Ser Gln Arg Lys Glu Glu Leu Leu Asp Ser Arg
 705 710 715 720
 Thr Pro Ala Gly Arg Gly Ala Gly Thr Ser Ala Arg Gly His His Ser
 725 730 735
 Asp Arg Glu Pro Leu Leu Gly Pro Pro Ala Ala Arg Ala Arg Ser Leu
 740 745 750
 Leu Pro Leu Pro Leu Glu Gly Lys Ala Lys Arg Ser His Ser Phe Asp
 755 760 765
 Met Gly Asp Phe Ala Ala Ala Ala Ala Gly Gly Val Val Pro Gly Gly
 770 775 780
 Tyr Ser Pro Pro Arg Lys Val Ser Asn Ile Trp Thr Lys Arg Ser Leu
 785 790 795 800
 Ser Val Asn Gly Met Leu Leu Pro Phe Glu Glu Ser Asp Leu Val Gly
 805 810 815
 Ala Arg Gly Thr Phe Gly Ser Ser Glu Trp Val Met Glu Ser Thr Val
 820 825 830

<210> 42

<211> 789

<212> PRT

<213> Cynomolgus monkey

<400> 42

Met Glu Thr Leu Leu Gly Gly Leu Leu Ala Phe Gly Met Ala Phe Ala
 1 5 10 15
 Val Val Asp Ala Cys Pro Lys Tyr Cys Val Cys Gln Asn Leu Ser Glu
 20 25 30
 Ser Leu Gly Thr Leu Cys Pro Ser Lys Gly Leu Leu Phe Val Pro Pro
 35 40 45

Asp	Ile	Asp	Arg	Arg	Thr	Val	Glu	Leu	Arg	Leu	Gly	Gly	Asn	Phe	Ile	50	55	60	
Ile	His	Ile	Ser	Arg	Gln	Asp	Phe	Ala	Asn	Met	Thr	Gly	Leu	Val	Asp	65	70	75	80
Leu	Thr	Leu	Ser	Arg	Asn	Thr	Ile	Ser	His	Ile	Gln	Pro	Phe	Ser	Phe	85	90	95	
Leu	Asp	Leu	Glu	Ser	Leu	Arg	Ser	Leu	His	Leu	Asp	Ser	Asn	Arg	Leu	100	105	110	
Pro	Ser	Leu	Gly	Glu	Asp	Thr	Leu	Arg	Gly	Leu	Val	Asn	Leu	Gln	His	115	120	125	
Leu	Ile	Val	Asn	Asn	Asn	Gln	Leu	Gly	Gly	Ile	Ala	Asp	Glu	Ala	Phe	130	135	140	
Glu	Asp	Phe	Leu	Leu	Thr	Leu	Glu	Asp	Leu	Asp	Leu	Ser	Tyr	Asn	Asn	145	150	155	160
Leu	His	Gly	Leu	Pro	Trp	Asp	Ser	Val	Arg	Arg	Met	Val	Asn	Leu	His	165	170	175	
Gln	Leu	Ser	Leu	Asp	His	Asn	Leu	Leu	Asp	His	Ile	Ala	Glu	Gly	Thr	180	185	190	
Phe	Ala	Asp	Leu	Gln	Lys	Leu	Ala	Arg	Leu	Asp	Leu	Thr	Ser	Asn	Arg	195	200	205	
Leu	Gln	Lys	Leu	Pro	Pro	Asp	Pro	Ile	Phe	Ala	Arg	Ser	Gln	Ala	Ser	210	215	220	
Ala	Leu	Thr	Ala	Thr	Pro	Phe	Ala	Pro	Pro	Leu	Ser	Phe	Ser	Phe	Gly	225	230	235	240
Gly	Asn	Pro	Leu	His	Cys	Asn	Cys	Glu	Leu	Leu	Trp	Leu	Arg	Arg	Leu	245	250	255	
Glu	Arg	Asp	Asp	Asp	Leu	Glu	Thr	Cys	Gly	Ser	Pro	Gly	Gly	Leu	Lys	260	265	270	
Gly	Arg	Tyr	Phe	Trp	His	Val	Arg	Glu	Glu	Glu	Phe	Val	Cys	Glu	Pro	275	280	285	
Pro	Leu	Ile	Thr	Gln	His	Thr	His	Lys	Leu	Leu	Val	Leu	Glu	Gly	Gln	290	295	300	

Ala Ala Thr Leu Lys Cys Lys Ala Ile Gly Asp Pro Ser Pro Leu Ile
 305 310 315 320
 His Trp Val Ala Pro Asp Asp Arg Leu Val Gly Asn Ser Ser Arg Thr
 325 330 335
 Ala Val Tyr Asp Asn Gly Thr Leu Asp Ile Phe Ile Thr Thr Ser Gln
 340 345 350
 Asp Ser Gly Ala Phe Thr Cys Ile Ala Ala Asn Ala Ala Gly Glu Ala
 355 360 365
 Thr Ala Thr Val Glu Val Ser Ile Val Gln Leu Pro His Leu Ser Asn
 370 375 380
 Ser Thr Ser Arg Thr Ala Pro Pro Lys Ser Arg Leu Ser Asp Ile Thr
 385 390 395 400
 Gly Ser Ser Lys Thr Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Glu
 405 410 415
 Pro Pro Lys Ser Pro Pro Glu Arg Ala Val Leu Val Ser Glu Val Thr
 420 425 430
 Thr Thr Ser Ala Leu Ala Lys Trp Ser Val Ser Lys Ser Thr Pro Arg
 435 440 445
 Val Lys Met Tyr Gln Leu Gln Tyr Asn Cys Ser Asp Asp Glu Val Leu
 450 455 460
 Ile Tyr Arg Met Ile Pro Ala Ser Asn Lys Ala Phe Val Val Asn Asn
 465 470 475 480
 Leu Val Ser Gly Thr Gly Tyr Asp Leu Cys Val Leu Ala Met Trp Asp
 485 490 495
 Asp Thr Ala Thr Thr Leu Thr Ala Thr Asn Ile Val Gly Cys Ala Gln
 500 505 510
 Phe Phe Thr Lys Ala Asp Tyr Pro Gln Cys Gln Ser Met His Ser Gln
 515 520 525
 Ile Leu Gly Gly Thr Met Ile Leu Val Ile Gly Gly Ile Ile Val Ala
 530 535 540
 Thr Leu Leu Val Phe Ile Val Ile Leu Met Val Arg Tyr Lys Val Cys
 545 550 555 560

Asn His Glu Ala Pro Ser Lys Met Ala Ala Ala Val Ser Asn Val Tyr
 565 570 575

Ser Gln Thr Asn Gly Ala Gln Pro Pro Pro Pro Ser Ser Ala Pro Ala
 580 585 590

Gly Ala Pro Pro Gln Gly Pro Pro Lys Val Val Val Arg Asn Glu Leu
 595 600 605

Leu Asp Phe Thr Ala Ser Leu Ala Arg Ala Ser Asp Ser Ser Ser Ser
 610 615 620

Ser Ser Leu Gly Ser Gly Glu Ala Ala Gly Leu Gly Arg Ala Pro Trp
 625 630 635 640

Arg Leu Pro Pro Ser Ala Pro Arg Pro Lys Pro Ser Leu Asp Arg Leu
 645 650 655

Met Gly Ala Phe Ala Ser Leu Asp Leu Lys Ser Gln Arg Lys Glu Glu
 660 665 670

Leu Leu Asp Ser Arg Thr Pro Ala Gly Arg Gly Ala Gly Thr Ser Ala
 675 680 685

Arg Gly His His Ser Asp Arg Glu Pro Leu Leu Gly Pro Pro Ala Ala
 690 695 700

Arg Ala Arg Ser Leu Leu Pro Leu Pro Leu Glu Gly Lys Ala Lys Arg
 705 710 715 720

Ser His Ser Phe Asp Met Gly Asp Phe Ala Ala Ala Ala Ala Gly Gly
 725 730 735

Val Val Pro Gly Gly Tyr Ser Pro Pro Arg Arg Val Ser Asn Ile Trp
 740 745 750

Thr Lys Arg Ser Leu Ser Val Asn Gly Met Leu Leu Pro Phe Glu Glu
 755 760 765

Ser Asp Leu Val Gly Ala Arg Gly Thr Phe Gly Ser Ser Glu Trp Val
 770 775 780

Met Glu Ser Thr Val
 785

<210> 43

<211> 788

<212> PRT

<213> Mus musculus

<400> 43

Met Glu Thr Leu Leu Gly Gly Leu Leu Ala Phe Gly Met Ala Phe Ala
1 5 10 15

Val Val Asp Ala Cys Pro Lys Tyr Cys Val Cys Gln Asn Leu Ser Glu
20 25 30

Ser Leu Gly Thr Leu Cys Pro Ser Lys Arg Leu Leu Phe Val Pro Pro
35 40 45

Asp Ile Asp Arg Arg Thr Val Glu Leu Arg Leu Gly Gly Asn Phe Ile
50 55 60

Ile His Ile Gly Arg Gln Asp Phe Ala Asn Met Thr Gly Leu Val Asp
65 70 75 80

Leu Thr Leu Ser Arg Asn Thr Ile Ser His Ile Gln Pro Phe Ser Phe
85 90 95

Leu Asp Leu Glu Ser Leu Arg Ser Leu His Leu Asp Ser Asn Arg Leu
100 105 110

Pro Ser Leu Gly Glu Asp Thr Leu Arg Gly Leu Val Asn Leu Gln His
115 120 125

Leu Ile Val Asn Asn Asn Gln Leu Gly Gly Ile Ala Asp Asp Ala Phe
130 135 140

Glu Asp Phe Leu Leu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn
145 150 155 160

Leu His Gly Leu Pro Trp Asp Ser Val Arg Arg Met Val Asn Leu His
165 170 175

Gln Leu Ser Leu Asp His Asn Leu Leu Asp His Ile Ala Glu Gly Thr
180 185 190

Phe Ala Asp Leu Gln Lys Leu Ala Arg Leu Asp Leu Thr Ser Asn Arg
195 200 205

Leu Gln Lys Leu Pro Pro Asp Pro Ile Phe Ala Arg Ser Gln Ala Ser
210 215 220

Leu Leu Thr Ala Thr Pro Phe Ala Pro Pro Leu Ser Phe Ser Phe Gly

225		230		235		240
Gly Asn Pro Leu His Cys Asn Cys Glu Leu Leu Trp Leu Arg Arg Leu						
	245			250		255
Glu Arg Asp Asp Asp Leu Glu Thr Cys Gly Ser Pro Gly Ser Leu Lys						
	260			265		270
Gly Arg Tyr Phe Trp His Ile Arg Glu Glu Glu Phe Val Cys Glu Pro						
	275			280		285
Pro Leu Ile Thr Gln His Thr His Lys Leu Leu Val Leu Glu Gly Gln						
	290			295		300
Ala Ala Thr Leu Lys Cys Lys Ala Ile Gly Asp Pro Ser Pro Leu Ile						
305		310		315		320
His Trp Val Ala Pro Asp Asp Arg Leu Val Gly Asn Ser Ser Arg Thr						
	325			330		335
Ala Val Tyr Asp Asn Gly Thr Leu Asp Ile Leu Ile Thr Thr Ser Gln						
	340			345		350
Asp Ser Gly Pro Phe Thr Cys Ile Ala Ala Asn Ala Ala Gly Glu Ala						
	355			360		365
Thr Ala Thr Val Glu Val Ser Ile Val Gln Leu Pro His Leu Ser Asn						
	370			375		380
Ser Thr Ser Arg Met Ala Pro Pro Lys Ser Arg Leu Ser Asp Ile Thr						
385		390		395		400
Gly Ser Ser Lys Thr Ser Arg Gly Gly Gly Gly Ser Gly Ala Gly Glu						
	405			410		415
Pro Pro Lys Ser Thr Pro Glu Arg Ala Val Leu Val Ser Asp Val Thr						
	420			425		430
Thr Thr Ser Ala Leu Val Lys Trp Ser Val Ser Lys Ser Ala Pro Arg						
	435			440		445
Val Lys Met Tyr Gln Leu Gln Tyr Asn Cys Ser Asp Asp Glu Val Leu						
	450			455		460
Ile Tyr Arg Met Ile Pro Ala Ser Asn Lys Ala Phe Val Val Asn Asn						
465		470		475		480
Leu Val Ser Gly Thr Gly Tyr Asp Leu Cys Val Leu Ala Met Trp Asp						

	485		490		495
Asp Thr Ala Thr Thr Leu Thr Ala Thr Asn Ile Val Gly Cys Ala Gln	500		505		510
Phe Phe Thr Lys Ala Asp Tyr Pro Gln Cys Gln Ser Met His Ser Gln	515		520		525
Ile Lys Gly Gly Thr Met Ile Leu Val Ile Gly Gly Ile Ile Val Ala	530		535		540
Thr Leu Leu Val Phe Ile Val Ile Leu Met Val Arg Tyr Lys Val Cys	545		550		555
Asn His Asp Thr Pro Gly Lys Met Ala Ala Ala Thr Val Ser Asn Val	565		570		575
Tyr Ser Gln Thr Asn Gly Ser Gln Pro Pro Pro Leu Gly Gly Ile Pro	580		585		590
Val Gly Gln Leu Pro Gln Ala Pro Pro Lys Val Val Val Arg Asn Glu	595		600		605
Leu Met Asp Phe Ser Thr Ser Leu Ala Arg Ala Cys Asp Ser Ser Ser	610		615		620
Ser Ser Ser Leu Gly Ser Gly Glu Ala Ala Gly Leu Gly Arg Gly Pro	625		630		635
Trp Arg Leu Pro Pro Pro Ala Pro Arg Pro Lys Pro Ser Leu Asp Arg	645		650		655
Leu Met Gly Ala Phe Ala Ser Leu Asp Leu Lys Ser Gln Arg Lys Glu	660		665		670
Glu Leu Leu Asp Ser Arg Thr Pro Ala Gly Arg Gly Ala Gly Thr Ser	675		680		685
Ser Arg Gly His His Ser Asp Arg Glu Pro Leu Leu Gly Pro Pro Ala	690		695		700
Thr Arg Ala Arg Ser Leu Leu Pro Leu Pro Leu Glu Gly Lys Ala Lys	705		710		715
Arg Ser His Ser Phe Asp Met Gly Asp Phe Ala Ala Ala Ala Ala Ala	725		730		735
Val Pro Gly Gly Tyr Ser Pro Pro Arg Arg Val Ser Asn Ile Trp Thr					

740	745	750
Lys Arg Ser Leu Ser Val Asn Gly Met Leu Leu Pro Phe Glu Glu Ser		
755	760	765
Asp Leu Val Gly Ala Arg Gly Thr Phe Gly Ser Ser Glu Trp Val Met		
770	775	780
Glu Ser Thr Val		
785		

<210> 44
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: LRR, Leucine
 Rich Repeat domain sequence

<400> 44
Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
1 5 10 15
Pro Pro Glu Ser Phe Gly Asn Leu Pro
20 25

<210> 45
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 45
Arg Val Val Glu Leu Arg Leu Thr Asp Asn Phe Ile Ala Ala Val Arg
1 5 10 15
Arg Arg Asp Phe Ala Asn Met Thr
20

<210> 46
 <211> 25
 <212> PRT
 <213> Artificial Sequence
 <220>

<223> Description of Artificial Sequence: LRR, Leucine
Rich Repeat domain sequence

<400> 46

Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
1 5 10 15

Pro Pro Glu Ser Phe Gly Asn Leu Pro
20 25

<210> 47

<211> 24

<212> PRT

<213> Homo sapiens

<400> 47

Ser Leu Val His Leu Thr Leu Ser Arg Asn Thr Ile Gly Gln Val Ala
1 5 10 15

Ala Gly Ala Phe Ala Asp Leu Arg
20

<210> 48

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: LRR, Leucine
Rich Repeat domain sequence

<400> 48

Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
1 5 10 15

Pro Pro Glu Ser Phe Gly Asn Leu Pro
20 25

<210> 49

<211> 24

<212> PRT

<213> Homo sapiens

<400> 49

Ala Leu Arg Ala Leu His Leu Asp Ser Asn Arg Leu Ala Glu Val Arg

1	5	10	15
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Gly Asp Gln Leu Arg Gly Leu Gly
20

<210> 50
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: LRR, Leucine
Rich Repeat domain sequence

<400> 50
Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
1 5 10 15

Pro Pro Glu Ser Phe Gly Asn Leu Pro
20 25

<210> 51
<211> 24
<212> PRT
<213> Homo sapiens

<400> 51
Asn Leu Arg His Leu Ile Leu Gly Asn Asn Gln Ile Arg Arg Val Glu
1 5 10 15

Ser Ala Ala Phe Asp Ala Phe Leu
20

<210> 52
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: LRR, Leucine
Rich Repeat domain sequence

<400> 52
Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
1 5 10 15

Pro Pro Glu Ser Phe Gly Asn Leu Pro
20 25

<210> 53
<211> 24
<212> PRT
<213> Homo sapiens

<400> 53
Thr Val Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu Ala Leu Pro
1 5 10 15

Trp Glu Ala Val Gly Gln Met Val
20

<210> 54
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: LRR, Leucine
Rich Repeat domain sequence

<400> 54
Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
1 5 10 15

Pro Pro Glu Ser Phe Gly Asn Leu Pro
20 25

<210> 55
<211> 24
<212> PRT
<213> Homo sapiens

<400> 55
Asn Leu Asn Thr Leu Thr Leu Asp His Asn Leu Ile Asp His Ile Ala
1 5 10 15

Glu Gly Thr Phe Val Gln Leu His
20

<210> 56
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: LRR, Leucine
Rich Repeat domain sequence

<400> 56
Asn Leu Glu Glu Leu Asp Leu Ser Asn Asn Asn Leu Ser Gly Ser Leu
1 5 10 15
Pro Pro Glu Ser Phe Gly Asn Leu Pro
20 25

<210> 57
<211> 23
<212> PRT
<213> Homo sapiens

<400> 57
Lys Leu Val Arg Leu Asp Met Thr Ser Asn Arg Leu His Lys Leu Pro
1 5 10 15
Pro Asp Gly Leu Phe Leu Arg
20

<210> 58
<211> 54
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: LRR, Leucine
Rich Repeat domain sequence

<400> 58
Asn Pro Phe Asn Cys Asp Cys Glu Leu Arg Trp Leu Leu Arg Trp Leu
1 5 10 15
Arg Glu Thr Asn Pro Arg Arg Leu Glu Asp Gln Glu Asp Leu Arg Cys
20 25 30
Ala Ser Pro Glu Ser Leu Arg Gly Gln Pro Leu Leu Glu Leu Leu Pro
35 40 45

Ser Asp Phe Ser Cys Pro
50

<210> 59
<211> 46
<212> PRT
<213> Homo sapiens

<400> 59
Asn Pro Leu His Cys Asn Cys Glu Leu Leu Trp Leu Arg Arg Leu Thr
1 5 10 15

Arg Glu Asp Asp Leu Glu Thr Cys Ala Thr Pro Glu His Leu Thr Asp
20 25 30

Arg Tyr Phe Trp Ser Ile Pro Glu Glu Glu Phe Leu Cys Glu
35 40 45

<210> 60
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Immunoglobulin
domain sequence

<400> 60
Gly Glu Ser Val Thr Leu Thr Cys Ser Val Ser Gly Phe Gly Pro Pro
1 5 10 15

Pro Val Thr Trp Leu Arg Asn Gly Lys Leu Ser Leu Thr Ile Ser Val
20 25 30

Thr Pro Glu Asp Ser Gly Gly Thr Tyr Thr Cys Val Val
35 40 45

<210> 61
<211> 59
<212> PRT
<213> Homo sapiens

<400> 61
Gly Gln Ala Val Ser Leu Arg Cys Arg Ala Val Gly Asp Pro Glu Pro

1	5	10	15
Val Val His Trp Val Ala Pro Asp Gly Arg Leu Leu Gly Asn Ser Ser			
20	25	30	
Arg Thr Arg Val Arg Gly Asp Gly Thr Leu Asp Val Thr Ile Thr Thr			
35	40	45	
Leu Arg Asp Ser Gly Thr Phe Thr Cys Ile Ala			
50	55		

<210> 62
 <211> 84
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Fibronectin
 Type III domain sequence

<400> 62
Pro Ser Ala Pro Thr Asn Leu Thr Val Thr Asp Val Thr Ser Thr Ser
1 5 10 15
Leu Thr Leu Ser Trp Ser Pro Pro Thr Gly Asn Gly Pro Ile Thr Gly
20 25 30
Tyr Glu Val Thr Tyr Arg Gln Pro Lys Asn Gly Gly Glu Trp Asn Glu
35 40 45
Leu Thr Val Pro Gly Thr Thr Thr Ser Tyr Thr Leu Thr Gly Leu Lys
50 55 60
Pro Gly Thr Glu Tyr Glu Val Arg Val Gln Ala Val Asn Gly Gly Gly
65 70 75 80
Gly Pro Glu Ser

<210> 63
 <211> 81
 <212> PRT
 <213> Homo sapiens

<400> 63
 Ser Ala Ala Glu Arg Arg Leu Val Ala Ala Glu Leu Thr Ser Asn Ser

1	5	10	15
Val Leu Ile Arg Trp Pro Ala Gln Arg Pro Val Pro Gly Ile Arg Met			
20	25	30	
Tyr Gln Val Gln Tyr Asn Ser Ser Val Asp Asp Ser Leu Val Tyr Arg			
35	40	45	
Met Ile Pro Ser Thr Ser Gln Thr Phe Leu Val Asn Asp Leu Ala Ala			
50	55	60	
Gly Arg Ala Tyr Asp Leu Cys Val Leu Ala Val Tyr Asp Asp Gly Ala			
65	70	75	80
Thr			

<210> 64
 <211> 405
 <212> PRT
 <213> Homo sapiens

<400> 64
Met Glu Arg Leu Gln Lys Gln Pro Leu Thr Ser Pro Gly Ser Val Ser
1 5 10 15
Pro Ser Arg Asp Ser Ser Val Pro Gly Ser Pro Ser Ser Ile Val Ala
20 25 30
Lys Met Asp Asn Gln Val Leu Gly Tyr Lys Asp Leu Ala Ala Ile Pro
35 40 45
Lys Asp Lys Ala Ile Leu Asp Ile Glu Arg Pro Asp Leu Met Ile Tyr
50 55 60
Glu Pro His Phe Thr Tyr Ser Leu Leu Glu His Val Glu Leu Pro Arg
65 70 75 80
Ser Arg Glu Arg Ser Leu Ser Pro Lys Ser Thr Ser Pro Pro Pro Ser
85 90 95
Pro Glu Val Trp Ala Asp Ser Arg Ser Pro Gly Ile Ile Ser Gln Ala
100 105 110
Ser Ala Pro Arg Thr Thr Gly Thr Pro Arg Thr Ser Leu Pro His Phe
115 120 125

His	His	Pro	Glu	Thr	Ser	Arg	Pro	Asp	Ser	Asn	Ile	Tyr	Lys	Lys	Pro	130	135	140	
Pro	Ile	Tyr	Lys	Gln	Arg	Glu	Ser	Val	Gly	Gly	Ser	Pro	Gln	Thr	Lys	145	150	155	160
His	Leu	Ile	Glu	Asp	Leu	Ile	Ile	Glu	Ser	Ser	Lys	Phe	Pro	Ala	Ala	165	170	175	
Gln	Pro	Pro	Asp	Pro	Asn	Gln	Pro	Ala	Lys	Ile	Glu	Thr	Asp	Tyr	Trp	180	185	190	
Pro	Cys	Pro	Pro	Ser	Leu	Ala	Val	Val	Glu	Thr	Glu	Trp	Arg	Lys	Arg	195	200	205	
Lys	Ala	Ser	Arg	Arg	Gly	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Asp	210	215	220	
Asp	Ser	Gly	Glu	Glu	Met	Lys	Ala	Leu	Arg	Glu	Arg	Gln	Arg	Glu	Glu	225	230	235	240
Leu	Ser	Lys	Val	Thr	Ser	Asn	Leu	Gly	Lys	Met	Ile	Leu	Lys	Glu	Glu	245	250	255	
Met	Glu	Lys	Ser	Leu	Pro	Ile	Arg	Arg	Lys	Thr	Arg	Ser	Leu	Pro	Asp	260	265	270	
Arg	Thr	Pro	Phe	His	Thr	Ser	Leu	His	Gln	Gly	Thr	Ser	Lys	Ser	Ser	275	280	285	
Ser	Leu	Pro	Ala	Tyr	Gly	Arg	Thr	Thr	Leu	Ser	Arg	Leu	Gln	Ser	Thr	290	295	300	
Glu	Phe	Ser	Pro	Ser	Gly	Ser	Glu	Thr	Gly	Ser	Pro	Gly	Leu	Gln	Asn	305	310	315	320
Gly	Glu	Gly	Gln	Arg	Gly	Arg	Met	Asp	Arg	Gly	Asn	Ser	Leu	Pro	Cys	325	330	335	
Val	Leu	Glu	Gln	Lys	Ile	Tyr	Pro	Tyr	Glu	Met	Leu	Val	Val	Thr	Asn	340	345	350	
Lys	Gly	Arg	Thr	Lys	Leu	Pro	Pro	Gly	Val	Asp	Arg	Met	Arg	Leu	Glu	355	360	365	
Arg	His	Leu	Ser	Ala	Glu	Asp	Phe	Ser	Arg	Val	Phe	Ala	Met	Ser	Pro	370	375	380	

Glu Glu Phe Gly Lys Leu Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys
 385 390 395 400

Lys Ala Ser Leu Phe
 405

<210> 65
 <211> 383
 <212> PRT
 <213> Homo sapiens

<400> 65
 Met Glu Arg Leu Gln Lys Gln Pro Leu Thr Ser Pro Gly Ser Val Ser
 1 5 10 15

Pro Ser Arg Asp Ser Ser Val Pro Gly Ser Pro Ser Ser Ile Val Ala
 20 25 30

Lys Met Asp Asn Gln Val Leu Gly Tyr Lys Asp Leu Ala Ala Ile Pro
 35 40 45

Lys Asp Lys Ala Ile Leu Asp Ile Glu Arg Pro Asp Leu Met Ile Tyr
 50 55 60

Glu Pro His Phe Thr Tyr Ser Leu Leu Glu His Val Glu Leu Pro Arg
 65 70 75 80

Ser Arg Glu Arg Ser Leu Ser Pro Lys Ser Thr Ser Pro Pro Pro Ser
 85 90 95

Pro Glu Val Trp Ala Asp Ser Arg Ser Pro Gly Ile Ile Ser Gln Ala
 100 105 110

Ser Ala Pro Arg Thr Thr Gly Thr Pro Arg Thr Ser Leu Pro His Phe
 115 120 125

His His Pro Glu Thr Ser Arg Pro Asp Ser Asn Ile Tyr Lys Lys Pro
 130 135 140

Pro Ile Tyr Lys Gln Arg Glu Ser Val Gly Gly Ser Pro Gln Thr Lys
 145 150 155 160

His Leu Ile Glu Asp Leu Ile Ile Glu Ser Ser Lys Phe Pro Ala Ala
 165 170 175

Gln Pro Pro Asp Pro Asn Gln Pro Ala Lys Ile Glu Thr Asp Tyr Trp
 180 185 190

Pro Cys Pro Pro Ser Leu Ala Val Val Glu Thr Glu Trp Arg Lys Arg
 195 200 205
 Lys Ala Ser Arg Arg Gly Ala Glu Glu Glu Glu Glu Glu Asp Asp
 210 215 220
 Asp Ser Gly Glu Glu Met Lys Ala Leu Arg Glu Arg Gln Arg Glu Glu
 225 230 235 240
 Leu Ser Lys Val Thr Ser Asn Leu Gly Lys Met Ile Leu Lys Glu Glu
 245 250 255
 Met Glu Lys Ser Leu Pro Ile Arg Arg Lys Thr Arg Ser Leu Pro Asp
 260 265 270
 Arg Thr Pro Phe His Thr Ser Leu His Gln Gly Thr Ser Lys Ser Ser
 275 280 285
 Ser Leu Pro Ala Tyr Gly Arg Thr Thr Leu Ser Arg Leu Gln Ser Thr
 290 295 300
 Glu Phe Ser Pro Ser Gly Ser Glu Thr Gly Ser Pro Asp Pro Gln Ile
 305 310 315 320
 Tyr Pro Tyr Glu Met Leu Val Val Thr Asn Lys Gly Arg Thr Lys Leu
 325 330 335
 Pro Pro Gly Val Asp Arg Met Arg Leu Glu Arg His Leu Ser Ala Glu
 340 345 350
 Asp Phe Ser Arg Val Phe Ala Met Ser Pro Glu Glu Phe Gly Lys Leu
 355 360 365
 Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys Lys Ala Ser Leu Phe
 370 375 380

<210> 66
 <211> 383
 <212> PRT
 <213> Homo sapiens

<400> 66
 Met Glu Arg Leu Gln Lys Gln Pro Leu Thr Ser Pro Gly Ser Val Ser
 1 5 10 15
 Pro Ser Arg Asp Ser Ser Val Pro Gly Ser Pro Ser Ser Ile Val Ala

20	25	30
Lys Met Asp Asn Gln Val Leu Gly Tyr Lys Asp Leu Ala Ala Ile Pro		
35	40	45
Lys Asp Lys Ala Ile Leu Asp Ile Glu Arg Pro Asp Leu Met Ile Tyr		
50	55	60
Glu Pro His Phe Thr Tyr Ser Leu Leu Glu His Val Glu Leu Pro Arg		
65	70	75
Gln Arg Glu Arg Ser Leu Ser Pro Lys Ser Thr Ser Pro Pro Pro Ser		
85	90	95
Pro Glu Val Trp Ala Asp Ser Arg Ser Pro Gly Ile Ile Ser Gln Ala		
100	105	110
Ser Ala Pro Arg Thr Thr Gly Thr Pro Arg Thr Ser Leu Pro His Phe		
115	120	125
His His Pro Glu Thr Ser Arg Pro Asp Ser Asn Ile Tyr Lys Lys Pro		
130	135	140
Pro Ile Tyr Lys Gln Arg Glu Ser Val Gly Gly Ser Pro Gln Thr Lys		
145	150	155
His Leu Ile Glu Asp Leu Ile Ile Glu Ser Ser Lys Phe Pro Ala Ala		
165	170	175
Gln Pro Pro Asp Pro Asn Gln Pro Ala Lys Ile Glu Thr Asp Tyr Trp		
180	185	190
Pro Cys Pro Pro Ser Leu Ala Val Val Glu Thr Glu Trp Arg Lys Arg		
195	200	205
Lys Ala Ser Arg Arg Gly Ala Glu Glu Glu Glu Glu Glu Asp Asp		
210	215	220
Asp Ser Gly Glu Glu Met Lys Ala Leu Arg Glu Arg Gln Arg Glu Glu		
225	230	235
Leu Ser Lys Val Thr Ser Asn Leu Gly Lys Met Ile Leu Lys Glu Glu		
245	250	255
Met Glu Lys Ser Leu Pro Ile Arg Arg Lys Thr Arg Ser Leu Pro Asp		
260	265	270
Arg Thr Pro Phe His Thr Ser Leu His Gln Gly Thr Ser Lys Ser Ser		

275	280	285
Ser Leu Pro Arg Tyr Gly Arg Thr Thr Leu Ser Arg Leu Gln Ser Thr		
290	295	300
Glu Phe Ser Pro Ser Gly Ser Glu Thr Gly Ser Pro Gly Leu Gln Ile		
305	310	315
Tyr Pro Tyr Glu Val Leu Val Val Thr Asn Lys Gly Arg Thr Lys Leu		
	325	330
Pro Pro Gly Val Asp Arg Met Arg Leu Glu Arg His Leu Ser Ala Glu		
	340	345
Asp Phe Ser Arg Val Ser Ala Met Ser Pro Glu Glu Phe Gly Lys Leu		
	355	360
Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys Lys Ala Ser Leu Phe		
	370	375
		380

<210> 67
 <211> 405
 <212> PRT
 <213> Homo sapiens

<400> 67
Met Glu Arg Leu Gln Lys Gln Pro Leu Thr Ser Pro Gly Ser Val Ser
1 5 10 15
Pro Ser Arg Asp Ser Ser Val Pro Gly Ser Pro Ser Ser Ile Val Ala
20 25 30
Lys Met Asp Asn Gln Val Leu Gly Tyr Lys Asp Leu Ala Ala Ile Pro
35 40 45
Lys Asp Lys Ala Ile Leu Asp Ile Glu Arg Pro Asp Leu Met Ile Tyr
50 55 60
Glu Pro His Phe Thr Tyr Ser Leu Leu Glu His Val Glu Leu Pro Arg
65 70 75 80
Gln Arg Glu Arg Ser Leu Ser Pro Lys Ser Thr Ser Pro Pro Pro Ser
85 90 95
Pro Glu Val Trp Ala Asp Ser Arg Ser Pro Gly Ile Ile Ser Gln Ala
100 105 110

Ser	Ala	Pro	Arg	Thr	Thr	Gly	Thr	Pro	Arg	Thr	Ser	Leu	Pro	His	Phe	115	120	125	
His	His	Pro	Glu	Thr	Ser	Arg	Pro	Asp	Ser	Asn	Ile	Tyr	Lys	Lys	Pro	130	135	140	
Pro	Ile	Tyr	Lys	Gln	Arg	Glu	Ser	Val	Gly	Gly	Ser	Pro	Gln	Thr	Lys	145	150	155	160
His	Leu	Ile	Glu	Asp	Leu	Ile	Ile	Glu	Ser	Ser	Lys	Phe	Pro	Ala	Ala	165	170	175	
Gln	Pro	Pro	Asp	Pro	Asn	Gln	Pro	Ala	Lys	Ile	Glu	Thr	Asp	Tyr	Trp	180	185	190	
Pro	Cys	Pro	Pro	Ser	Leu	Ala	Val	Val	Glu	Thr	Glu	Trp	Arg	Lys	Arg	195	200	205	
Lys	Ala	Ser	Arg	Arg	Gly	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Asp	210	215	220	
Asp	Ser	Gly	Glu	Glu	Met	Lys	Ala	Leu	Arg	Glu	Arg	Gln	Arg	Glu	Glu	225	230	235	240
Leu	Ser	Lys	Val	Thr	Ser	Asn	Leu	Gly	Lys	Met	Ile	Leu	Lys	Glu	Glu	245	250	255	
Met	Glu	Lys	Ser	Leu	Pro	Ile	Arg	Arg	Lys	Thr	Arg	Ser	Leu	Pro	Asp	260	265	270	
Arg	Thr	Pro	Phe	His	Thr	Ser	Leu	His	Gln	Gly	Thr	Ser	Lys	Ser	Ser	275	280	285	
Ser	Leu	Pro	Arg	Tyr	Gly	Arg	Thr	Thr	Leu	Ser	Arg	Leu	Gln	Ser	Thr	290	295	300	
Glu	Phe	Ser	Pro	Ser	Gly	Ser	Glu	Thr	Gly	Ser	Pro	Gly	Leu	Gln	Asn	305	310	315	320
Gly	Glu	Gly	Gln	Arg	Gly	Arg	Met	Asp	Arg	Gly	Asn	Ser	Leu	Pro	Cys	325	330	335	
Val	Leu	Glu	Gln	Lys	Ile	Tyr	Pro	Tyr	Glu	Met	Leu	Val	Val	Thr	Asn	340	345	350	
Lys	Gly	Arg	Thr	Lys	Leu	Pro	Pro	Gly	Val	Asp	Arg	Met	Arg	Leu	Glu	355	360	365	

Arg His Leu Ser Ala Glu Asp Phe Ser Arg Val Phe Ala Met Ser Pro
 370 375 380

Glu Glu Phe Gly Lys Leu Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys
 385 390 395 400

Lys Ala Ser Leu Phe
 405

<210> 68

<211> 405

<212> PRT

<213> Homo sapiens

<400> 68

Met Glu Arg Leu Gln Lys Gln Pro Leu Thr Ser Pro Gly Ser Val Ser
 1 5 10 15

Pro Ser Arg Asp Ser Ser Val Pro Gly Ser Pro Ser Ser Ile Val Ala
 20 25 30

Lys Met Asp Asn Gln Val Leu Gly Tyr Lys Asp Leu Ala Ala Ile Pro
 35 40 45

Lys Asp Lys Ala Ile Leu Asp Ile Glu Arg Pro Asp Leu Met Ile Tyr
 50 55 60

Glu Pro His Phe Thr Tyr Ser Leu Leu Glu His Val Glu Leu Pro Arg
 65 70 75 80

Ser Arg Glu Arg Ser Leu Ser Pro Lys Ser Thr Ser Pro Pro Pro Ser
 85 90 95

Pro Glu Val Trp Ala Asp Ser Arg Ser Pro Gly Ile Ile Ser Gln Ala
 100 105 110

Ser Ala Pro Arg Thr Thr Gly Thr Pro Arg Thr Ser Leu Pro His Phe
 115 120 125

His His Pro Glu Thr Ser Arg Pro Asp Ser Asn Ile Tyr Lys Lys Pro
 130 135 140

Pro Ile Tyr Lys Gln Arg Glu Ser Val Gly Gly Ser Pro Gln Thr Lys
 145 150 155 160

His Leu Ile Glu Asp Leu Ile Ile Glu Ser Ser Lys Phe Pro Ala Ala
 165 170 175

Gln Pro Pro Asp Pro Asn Gln Pro Ala Lys Ile Glu Thr Asp Tyr Trp
 180 185 190
 Pro Cys Pro Pro Ser Leu Ala Val Val Glu Thr Glu Trp Arg Lys Arg
 195 200 205
 Lys Ala Ser Arg Arg Gly Ala Glu Glu Glu Glu Glu Glu Asp Asp
 210 215 220
 Asp Ser Gly Glu Glu Met Lys Ala Leu Arg Glu Arg Gln Arg Glu Glu
 225 230 235 240
 Leu Ser Lys Val Thr Ser Asn Leu Gly Lys Met Ile Leu Lys Glu Glu
 245 250 255
 Met Glu Lys Ser Leu Pro Ile Arg Arg Lys Thr Arg Ser Leu Pro Asp
 260 265 270
 Arg Thr Pro Phe His Thr Ser Leu His Gln Gly Thr Ser Lys Ser Ser
 275 280 285
 Ser Leu Pro Ala Tyr Gly Arg Thr Thr Leu Ser Arg Leu Gln Ser Thr
 290 295 300
 Glu Phe Ser Pro Ser Gly Ser Glu Thr Gly Ser Pro Ala Pro Gln Asn
 305 310 315 320
 Gly Glu Gly Gln Arg Gly Arg Met Asp Arg Gly Asn Ser Leu Pro Cys
 325 330 335
 Val Leu Glu Gln Lys Ile Tyr Pro Tyr Glu Met Leu Val Val Thr Asn
 340 345 350
 Lys Gly Arg Thr Lys Leu Pro Pro Gly Val Asp Arg Met Arg Leu Glu
 355 360 365
 Arg His Leu Ser Ala Glu Asp Phe Ser Arg Val Phe Ala Met Ser Pro
 370 375 380
 Glu Glu Phe Gly Lys Leu Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys
 385 390 395 400
 Lys Ala Ser Leu Phe
 405

<210> 69

<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: VHP, Villin
headpiece domain sequence

<400> 69
Tyr Leu Ser Asp Glu Asp Phe Glu Glu Val Phe Gly Met Thr Lys Glu
1 5 10 15
Glu Phe Tyr Lys Leu Pro Leu Trp Lys Gln Asn Gln Leu Lys Lys Lys
20 25 30
Leu Gly Leu Phe
35

<210> 70
<211> 36
<212> PRT
<213> Homo sapiens

<400> 70
His Leu Ser Ala Glu Asp Phe Ser Arg Val Phe Ala Met Ser Pro Glu
1 5 10 15
Glu Phe Gly Lys Leu Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys Lys
20 25 30
Ala Ser Leu Phe
35

<210> 71
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: VHP, Villin
headpiece domain sequence

<400> 71
Tyr Leu Ser Asp Glu Asp Phe Glu Glu Val Phe Gly Met Thr Lys Glu
1 5 10 15

Glu Phe Tyr Lys Leu Pro Ala Trp Lys Gln Asn Gln Leu Lys Lys Lys
20 25 30

Leu Gly Leu Phe
35

<210> 72
<211> 36
<212> PRT
<213> Homo sapiens

<400> 72
His Leu Ser Ala Glu Asp Phe Ser Arg Val Phe Ala Met Ser Pro Glu
1 5 10 15

Glu Phe Gly Lys Leu Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys Lys
20 25 30

Ala Ser Leu Phe
35

<210> 73
<211> 959
<212> PRT
<213> Homo sapiens

<400> 73
Met Glu Lys Met Leu Ala Gly Cys Phe Leu Leu Ile Leu Gly Gln Ile
1 5 10 15

Val Leu Leu Pro Cys Glu Ala Arg Glu Arg Ser Arg Gly Arg Ser Ile
20 25 30

Ser Arg Gly Arg His Ala Arg Thr His Pro Gln Thr Ala Leu Leu Glu
35 40 45

Ser Ser Cys Glu Asn Lys Arg Ala Asp Leu Val Phe Ile Ile Asp Ser
50 55 60

Ser Arg Ser Val Asn Thr His Asp Tyr Ala Lys Val Lys Glu Phe Ile
65 70 75 80

Val Asp Ile Leu Gln Phe Leu Asp Ile Gly Pro Asp Val Thr Arg Val
85 90 95

Gly Leu Leu Gln Tyr Gly Ser Thr Val Lys Asn Glu Phe Ser Leu Lys

100	105	110
Thr Phe Lys Arg Lys Ser Glu Val Glu Arg Ala Val Lys Arg Met Arg		
115	120	125
His Leu Ser Thr Gly Thr Met Thr Gly Leu Ala Ile Gln Tyr Ala Leu		
130	135	140
Asn Ile Ala Phe Ser Glu Ala Glu Gly Ala Arg Pro Leu Arg Glu Asn		
145	150	155
Val Pro Arg Val Ile Met Ile Val Thr Asp Gly Arg Pro Gln Asp Ser		
165	170	175
Val Ala Glu Val Ala Ala Lys Ala Arg Asp Thr Gly Ile Leu Ile Phe		
180	185	190
Ala Ile Gly Val Gly Gln Val Asp Phe Asn Thr Leu Lys Ser Ile Gly		
195	200	205
Ser Glu Pro His Glu Asp His Val Phe Leu Val Ala Asn Phe Ser Gln		
210	215	220
Ile Glu Thr Leu Thr Ser Val Phe Gln Lys Lys Leu Cys Thr Ala His		
225	230	235
Met Cys Ser Thr Leu Glu His Asn Cys Ala His Phe Cys Ile Asn Ile		
245	250	255
Pro Gly Ser Tyr Val Cys Arg Cys Lys Gln Gly Tyr Ile Leu Asn Ser		
260	265	270
Asp Gln Thr Thr Cys Arg Ile Gln Asp Leu Cys Ala Met Glu Asp His		
275	280	285
Asn Cys Glu Gln Leu Cys Val Asn Val Pro Gly Ser Phe Val Cys Glu		
290	295	300
Cys Tyr Ser Gly Tyr Ala Leu Ala Glu Asp Gly Lys Arg Cys Val Ala		
305	310	315
Val Asp Tyr Cys Ala Ser Glu Asn His Gly Cys Glu His Glu Cys Val		
325	330	335
Asn Ala Asp Gly Ser Tyr Leu Cys Gln Cys His Glu Gly Phe Ala Leu		
340	345	350
Asn Pro Asp Glu Lys Thr Cys Thr Lys Ile Asp Tyr Cys Ala Ser Ser		

355		360		365
Asn His Gly Cys Gln Tyr Glu Cys Val Asn Thr Asp Asp Ser Tyr Ser				
370		375		380
Cys His Cys Leu Lys Gly Phe Thr Leu Asn Pro Asp Lys Lys Thr Cys				
385		390		395 400
Arg Arg Ile Asn Tyr Cys Ala Leu Asn Lys Pro Gly Cys Glu His Glu				
	405		410	415
Cys Val Asn Met Glu Glu Ser Tyr Tyr Cys Arg Cys His Arg Gly Tyr				
	420		425	430
Thr Leu Asp Pro Asn Gly Lys Pro Cys Ser Arg Val Asp His Cys Ala				
	435		440	445
Gln Gln Asp His Gly Cys Glu Gln Leu Cys Leu Asn Thr Glu Asp Ser				
	450		455	460
Phe Val Cys Gln Cys Ser Glu Gly Phe Leu Ile Asn Glu Asp Leu Lys				
	465		475	480
Thr Cys Ser Arg Val Asp Tyr Cys Leu Leu Ser Asp His Gly Cys Glu				
	485		490	495
Tyr Ser Cys Val Asn Met Asp Arg Ser Phe Ala Cys Gln Cys Pro Glu				
	500		505	510
Gly His Val Leu Arg Ser Asp Gly Lys Thr Cys Ala Lys Leu Asp Ser				
	515		520	525
Cys Ala Leu Gly Asp His Gly Cys Glu His Ser Cys Val Ser Ser Glu				
	530		535	540
Asp Ser Phe Val Cys Gln Cys Phe Glu Gly Tyr Ile Leu Arg Glu Asp				
	545		555	560
Gly Lys Thr Cys Arg Arg Lys Asp Val Cys Gln Ala Ile Asp His Gly				
	565		570	575
Cys Glu His Ile Cys Val Asn Ser Asp Asp Ser Tyr Thr Cys Glu Cys				
	580		585	590
Leu Glu Gly Phe Arg Leu Thr Glu Asp Gly Lys Arg Cys Arg Ile Ser				
	595		600	605
Ser Gly Lys Asp Val Cys Lys Ser Thr His His Gly Cys Glu His Ile				

610		615		620
Cys Val Asn Asn Gly Asn Ser Tyr Ile Cys Lys Cys Ser Glu Gly Phe				
625		630		640
Val Leu Ala Glu Asp Gly Arg Arg Cys Lys Lys Cys Thr Glu Gly Pro				
	645		650	655
Ile Asp Leu Val Phe Val Ile Asp Gly Ser Lys Ser Leu Gly Glu Glu				
	660		665	670
Asn Phe Glu Val Val Lys Gln Phe Val Thr Gly Ile Ile Asp Ser Leu				
	675		680	685
Thr Ile Ser Pro Lys Ala Ala Arg Val Gly Leu Leu Gln Tyr Ser Thr				
	690		695	700
Gln Val His Thr Glu Phe Thr Leu Arg Asn Phe Asn Ser Ala Lys Asp				
705		710		720
Met Lys Lys Ala Val Ala His Met Lys Tyr Met Gly Lys Gly Ser Met				
	725		730	735
Thr Gly Leu Ala Leu Lys His Met Phe Glu Arg Ser Phe Thr Gln Gly				
	740		745	750
Glu Gly Ala Arg Pro Phe Ser Thr Arg Val Pro Arg Ala Ala Ile Val				
	755		760	765
Phe Thr Asp Gly Arg Ala Gln Asp Asp Val Ser Glu Trp Ala Ser Lys				
	770		775	780
Ala Lys Ala Asn Gly Ile Thr Met Tyr Ala Val Gly Val Gly Lys Ala				
785		790		800
Ile Glu Glu Glu Leu Gln Glu Ile Ala Ser Glu Pro Thr Asn Lys His				
	805		810	815
Leu Phe Tyr Ala Glu Asp Phe Ser Thr Met Asp Glu Ile Ser Glu Lys				
	820		825	830
Leu Lys Lys Gly Ile Cys Glu Ala Leu Glu Asp Ser Asp Gly Arg Gln				
	835		840	845
Asp Ser Pro Ala Gly Glu Leu Pro Lys Thr Val Gln Gln Pro Thr Glu				
	850		855	860
Ser Glu Pro Val Thr Ile Asn Ile Gln Asp Leu Leu Ser Cys Ser Asn				

865		870		875		880									
Phe	Ala	Val	Gln	His	Arg	Tyr	Leu	Phe	Glu	Glu	Asp	Asn	Leu	Leu	Arg
			885						890					895	
Ser	Thr	Gln	Lys	Leu	Ser	His	Ser	Thr	Lys	Pro	Ser	Gly	Ser	Pro	Leu
		900						905					910		
Glu	Glu	Lys	His	Asp	Gln	Cys	Lys	Cys	Glu	Asn	Leu	Ile	Met	Phe	Gln
		915					920					925			
Asn	Leu	Ala	Asn	Glu	Glu	Val	Arg	Lys	Leu	Thr	Gln	Arg	Leu	Glu	Glu
	930					935					940				
Met	Thr	Gln	Arg	Met	Glu	Ala	Leu	Glu	Asn	Arg	Leu	Arg	Tyr	Arg	
945				950					955						

<210> 74
 <211> 956
 <212> PRT
 <213> Homo sapiens

<400> 74

Met	Glu	Lys	Met	Leu	Ala	Gly	Cys	Phe	Leu	Leu	Ile	Leu	Gly	Gln	Ile
1			5						10					15	
Val	Leu	Leu	Pro	Ala	Glu	Ala	Arg	Glu	Arg	Ser	Arg	Gly	Arg	Ser	Ile
			20					25					30		
Ser	Arg	Gly	Arg	His	Ala	Arg	Thr	His	Pro	Gln	Thr	Ala	Leu	Leu	Glu
		35					40					45			
Ser	Ser	Cys	Glu	Asn	Lys	Arg	Ala	Asp	Leu	Val	Phe	Ile	Ile	Asp	Ser
	50					55					60				
Ser	Arg	Ser	Val	Asn	Thr	His	Asp	Tyr	Ala	Lys	Val	Lys	Glu	Phe	Ile
	65				70					75					80
Val	Asp	Ile	Leu	Gln	Phe	Leu	Asp	Ile	Gly	Pro	Asp	Val	Thr	Arg	Val
			85						90					95	
Gly	Leu	Leu	Gln	Tyr	Gly	Ser	Thr	Val	Lys	Asn	Glu	Phe	Ser	Leu	Lys
			100					105					110		
Thr	Phe	Lys	Arg	Lys	Ser	Glu	Val	Glu	Arg	Ala	Val	Lys	Arg	Met	Arg
		115					120						125		

His Leu Ser Thr Gly Thr Met Thr Gly Leu Ala Ile Gln Tyr Ala Leu
 130 135 140

Asn Ile Ala Phe Ser Glu Ala Glu Gly Ala Arg Pro Leu Arg Glu Asn
 145 150 155 160

Val Pro Arg Val Ile Met Ile Val Thr Asp Gly Arg Pro Gln Asp Ser
 165 170 175

Val Ala Glu Val Ala Ala Lys Ala Arg Asp Thr Gly Ile Leu Ile Phe
 180 185 190

Ala Ile Gly Val Gly Gln Val Asp Phe Asn Thr Leu Lys Ser Ile Gly
 195 200 205

Ser Glu Pro His Glu Asp His Val Phe Leu Val Ala Asn Phe Ser Gln
 210 215 220

Ile Glu Thr Leu Thr Ser Val Phe Gln Lys Lys Leu Cys Thr Ala His
 225 230 235 240

Met Cys Ser Thr Leu Glu His Asn Cys Ala His Phe Cys Ile Asn Ile
 245 250 255

Pro Gly Ser Tyr Val Cys Arg Cys Lys Gln Gly Tyr Ile Leu Asn Ser
 260 265 270

Asp Gln Thr Thr Cys Arg Ile Gln Asp Leu Cys Ala Met Glu Asp His
 275 280 285

Asn Cys Glu Gln Leu Cys Val Asn Val Pro Gly Ser Phe Val Cys Gln
 290 295 300

Cys Tyr Ser Gly Tyr Ala Leu Ala Glu Asp Gly Lys Arg Cys Val Ala
 305 310 315 320

Val Asp Tyr Cys Ala Ser Glu Asn His Gly Cys Glu His Glu Cys Val
 325 330 335

Asn Ala Asp Gly Ser Tyr Leu Cys Gln Cys His Glu Gly Phe Ala Leu
 340 345 350

Asn Pro Asp Lys Lys Thr Cys Thr Lys Ile Asp Tyr Cys Ala Ser Ser
 355 360 365

Asn His Gly Cys Gln His Glu Cys Val Asn Thr Asp Asp Ser Tyr Ser
 370 375 380

Cys His Cys Leu Lys Gly Phe Thr Leu Asn Pro Asp Lys Lys Thr Cys
 385 390 395 400
 Arg Arg Ile Asn Tyr Cys Ala Leu Asn Lys Pro Gly Cys Glu His Glu
 405 410 415
 Cys Val Asn Met Glu Glu Ser Tyr Tyr Cys Arg Cys His Arg Gly Tyr
 420 425 430
 Thr Leu Asp Pro Asn Gly Lys Thr Cys Ser Arg Val Asp His Cys Ala
 435 440 445
 Gln Gln Asp His Gly Cys Glu Gln Leu Cys Leu Asn Thr Glu Asp Ser
 450 455 460
 Phe Val Cys Gln Cys Ser Glu Gly Phe Leu Ile Asn Glu Asp Leu Lys
 465 470 475 480
 Thr Cys Ser Arg Val Asp Tyr Cys Leu Leu Ser Asp His Gly Cys Glu
 485 490 495
 Tyr Ser Cys Val Asn Met Asp Arg Ser Phe Ala Cys Gln Cys Pro Glu
 500 505 510
 Gly His Val Leu Arg Ser Asp Gly Lys Thr Cys Ala Lys Leu Asp Ser
 515 520 525
 Cys Ala Leu Gly Asp His Gly Cys Glu His Ser Cys Val Ser Ser Glu
 530 535 540
 Asp Ser Phe Val Cys Gln Cys Phe Glu Gly Tyr Ile Leu Arg Glu Asp
 545 550 555 560
 Gly Lys Thr Cys Arg Arg Lys Asp Val Cys Gln Ala Ile Asp His Gly
 565 570 575
 Cys Glu His Ile Cys Val Asn Ser Asp Asp Ser Tyr Thr Cys Glu Cys
 580 585 590
 Leu Val Gly Phe Arg Leu Ala Glu Asp Gly Lys Arg Cys Arg Arg Lys
 595 600 605
 Asp Val Cys Lys Ser Thr His His Gly Cys Glu His Ile Cys Val Asn
 610 615 620
 Asn Gly Asn Ser Tyr Ile Cys Lys Cys Ser Glu Gly Phe Val Leu Ala
 625 630 635 640

Glu	Asp	Gly	Arg	Arg	Cys	Lys	Lys	Cys	Thr	Glu	Gly	Pro	Ile	Asp	Leu	
					645				650					655		
Val	Phe	Val	Ile	Asp	Gly	Ser	Lys	Ser	Leu	Gly	Glu	Glu	Asn	Phe	Glu	
			660					665					670			
Val	Val	Lys	Gln	Phe	Val	Thr	Gly	Ile	Ile	Asp	Ser	Leu	Thr	Ile	Ser	
		675					680					685				
Pro	Lys	Ala	Ala	Arg	Val	Gly	Leu	Leu	Gln	Tyr	Ser	Thr	Gln	Val	His	
	690					695					700					
Thr	Glu	Phe	Thr	Leu	Arg	Asn	Phe	Asn	Ser	Ala	Lys	Asp	Met	Lys	Lys	
705					710					715					720	
Ala	Val	Ala	His	Met	Lys	Tyr	Met	Gly	Lys	Gly	Ser	Met	Thr	Gly	Leu	
				725				730						735		
Ala	Leu	Lys	His	Met	Phe	Glu	Arg	Ser	Phe	Thr	Gln	Gly	Glu	Gly	Ala	
			740					745					750			
Arg	Pro	Phe	Ser	Thr	Arg	Val	Pro	Arg	Ala	Ala	Ile	Val	Phe	Thr	Asp	
		755					760					765				
Gly	Arg	Ala	Gln	Asp	Asp	Val	Ser	Glu	Trp	Ala	Ser	Lys	Ala	Lys	Ala	
	770					775					780					
Asn	Gly	Ile	Thr	Met	Tyr	Ala	Val	Gly	Val	Gly	Lys	Ala	Ile	Glu	Glu	
785					790					795				800		
Glu	Leu	Gln	Glu	Ile	Ala	Ser	Glu	Pro	Thr	Asn	Lys	His	Leu	Phe	Tyr	
				805					810					815		
Ala	Glu	Asp	Phe	Ser	Thr	Met	Asp	Glu	Ile	Ser	Glu	Lys	Leu	Lys	Lys	
			820					825					830			
Gly	Ile	Cys	Glu	Ala	Leu	Glu	Asp	Ser	Asp	Gly	Arg	Gln	Asp	Ser	Pro	
		835					840					845				
Ala	Gly	Glu	Leu	Pro	Lys	Thr	Val	Gln	Gln	Pro	Thr	Glu	Ser	Glu	Pro	
	850					855					860					
Val	Thr	Ile	Asn	Ile	Gln	Asp	Leu	Leu	Ser	Cys	Ser	Asn	Phe	Ala	Val	
865					870					875				880		
Gln	His	Arg	Tyr	Leu	Phe	Glu	Glu	Asp	Asn	Leu	Leu	Arg	Ser	Thr	Gln	
				885					890					895		

Lys Leu Ser His Ser Thr Lys Pro Ser Gly Ser Pro Leu Glu Glu Lys
 900 905 910

His Asp Gln Cys Lys Cys Glu Asn Leu Ile Met Phe Gln Asn Leu Ala
 915 920 925

Asn Glu Glu Val Arg Lys Leu Thr Gln Arg Leu Glu Glu Met Thr Gln
 930 935 940

Arg Met Glu Ala Leu Glu Asn Arg Leu Arg Tyr Arg
 945 950 955

<210> 75

<211> 937

<212> PRT

<213> Homo sapiens

<400> 75

Met Glu Lys Met Leu Ala Gly Cys Phe Leu Leu Ile Leu Gly Gln Ile
 1 5 10 15

Val Leu Leu Pro Ala Glu Ala Arg Glu Arg Ser Arg Gly Arg Ser Ile
 20 25 30

Ser Arg Gly Arg His Ala Arg Thr His Pro Gln Thr Ala Leu Leu Glu
 35 40 45

Ser Ser Cys Glu Asn Lys Arg Ala Asp Leu Val Phe Ile Ile Asp Ser
 50 55 60

Ser Arg Ser Val Asn Thr His Asp Tyr Ala Lys Val Lys Glu Phe Ile
 65 70 75 80

Val Asp Ile Leu Gln Phe Leu Asp Ile Gly Pro Asp Val Thr Arg Val
 85 90 95

Gly Leu Leu Gln Tyr Gly Ser Thr Val Lys Asn Glu Phe Ser Leu Lys
 100 105 110

Thr Phe Lys Arg Lys Ser Glu Val Glu Arg Ala Val Lys Arg Met Arg
 115 120 125

His Leu Ser Thr Gly Thr Met Thr Gly Leu Ala Ile Gln Tyr Ala Leu
 130 135 140

Asn Ile Ala Phe Ser Glu Ala Glu Gly Ala Arg Pro Leu Arg Glu Asn
 145 150 155 160

Val	Pro	Arg	Val	Ile	Met	Ile	Val	Thr	Asp	Gly	Arg	Pro	Gln	Asp	Ser	165	170	175
Val	Ala	Glu	Val	Ala	Ala	Lys	Ala	Arg	Asp	Thr	Gly	Ile	Leu	Ile	Phe	180	185	190
Ala	Ile	Gly	Val	Gly	Gln	Val	Asp	Phe	Asn	Thr	Leu	Lys	Ser	Ile	Gly	195	200	205
Ser	Glu	Pro	His	Glu	Asp	His	Val	Phe	Leu	Val	Ala	Asn	Phe	Ser	Gln	210	215	220
Ile	Glu	Thr	Leu	Thr	Ser	Val	Phe	Gln	Lys	Lys	Leu	Cys	Thr	Ala	His	225	230	235
Met	Cys	Ser	Thr	Leu	Glu	His	Asn	Cys	Ala	His	Phe	Cys	Ile	Asn	Ile	245	250	255
Pro	Gly	Ser	Tyr	Val	Cys	Arg	Cys	Lys	Gln	Gly	Tyr	Ile	Leu	Asn	Ser	260	265	270
Asp	Gln	Thr	Thr	Cys	Arg	Ile	Gln	Asp	Leu	Cys	Ala	Met	Glu	Asp	His	275	280	285
Asn	Cys	Glu	Gln	Leu	Cys	Val	Asn	Val	Pro	Gly	Ser	Phe	Val	Cys	Gln	290	295	300
Cys	Tyr	Ser	Gly	Tyr	Ala	Leu	Ala	Glu	Asp	Gly	Lys	Arg	Cys	Val	Ala	305	310	315
Val	Asp	Tyr	Cys	Ala	Ser	Glu	Asn	His	Gly	Cys	Glu	His	Glu	Cys	Val	325	330	335
Asn	Ala	Asp	Gly	Ser	Tyr	Leu	Cys	Gln	Cys	His	Glu	Gly	Phe	Ala	Leu	340	345	350
Asn	Pro	Asp	Glu	Lys	Thr	Cys	Thr	Lys	Ile	Asp	Tyr	Cys	Ala	Ser	Ser	355	360	365
Asn	His	Gly	Cys	Gln	His	Glu	Cys	Val	Asn	Thr	Asp	Asp	Ser	Tyr	Ser	370	375	380
Cys	His	Cys	Leu	Lys	Gly	Phe	Thr	Leu	Asn	Pro	Asp	Lys	Lys	Thr	Cys	385	390	395
Arg	Arg	Ile	Asn	Tyr	Cys	Ala	Leu	Asn	Lys	Pro	Gly	Cys	Glu	His	Glu	405	410	415

Cys Val Asn Met Glu Glu Ser Tyr Tyr Cys Arg Cys His Arg Gly Tyr
 420 425 430
 Thr Leu Asp Pro Asn Gly Lys Thr Cys Ser Arg Val Asp His Cys Ala
 435 440 445
 Gln Gln Asp His Gly Cys Glu Gln Leu Cys Leu Asn Thr Glu Asp Ser
 450 455 460
 Phe Val Cys Gln Cys Ser Glu Gly Phe Leu Ile Asn Glu Asp Leu Lys
 465 470 475 480
 Thr Cys Ser Arg Val Asp Tyr Cys Leu Leu Ser Asp His Gly Cys Glu
 485 490 495
 Tyr Ser Cys Val Asn Met Asp Arg Ser Phe Ala Cys Gln Cys Pro Glu
 500 505 510
 Gly His Val Leu Arg Ser Asp Gly Lys Thr Cys Ala Lys Leu Asp Ser
 515 520 525
 Cys Ala Leu Gly Asp His Gly Cys Glu His Ser Cys Val Ser Ser Glu
 530 535 540
 Asp Ser Phe Val Cys Gln Cys Phe Glu Gly Tyr Ile Leu Arg Glu Asp
 545 550 555 560
 Gly Lys Thr Cys Arg Arg Lys Asp Val Cys Gln Ala Ile Asp His Gly
 565 570 575
 Cys Glu His Ile Cys Val Asn Ser Asp Asp Ser Tyr Thr Cys Glu Cys
 580 585 590
 Leu Glu Gly Phe Arg Leu Ala Glu Asp Gly Lys Arg Cys Arg Arg Lys
 595 600 605
 Asp Val Cys Lys Ser Thr His His Gly Cys Glu His Ile Cys Val Asn
 610 615 620
 Asn Gly Asn Ser Tyr Ile Cys Lys Cys Ser Glu Gly Phe Val Leu Ala
 625 630 635 640
 Glu Asp Gly Arg Arg Cys Lys Lys Cys Thr Glu Gly Pro Ile Asp Leu
 645 650 655
 Val Phe Val Ile Asp Gly Ser Lys Ser Leu Gly Glu Glu Asn Phe Glu
 660 665 670

Val	Val	Lys	Gln	Phe	Val	Thr	Gly	Ile	Ile	Asp	Ser	Leu	Thr	Ile	Ser	675	680	685	
Pro	Lys	Ala	Ala	Arg	Val	Gly	Leu	Leu	Gln	Tyr	Ser	Thr	Gln	Val	His	690	695	700	
Thr	Glu	Phe	Thr	Leu	Arg	Asn	Phe	Asn	Ser	Ala	Lys	Asp	Met	Lys	Lys	705	710	715	720
Ala	Val	Ala	His	Met	Lys	Tyr	Met	Gly	Lys	Gly	Ser	Met	Thr	Gly	Leu	725	730	735	
Ala	Leu	Lys	His	Met	Phe	Glu	Arg	Ser	Phe	Thr	Gln	Gly	Glu	Gly	Ala	740	745	750	
Arg	Pro	Leu	Ser	Thr	Arg	Val	Pro	Arg	Ala	Ala	Ile	Val	Phe	Thr	Asp	755	760	765	
Gly	Arg	Ala	Gln	Asp	Asp	Val	Ser	Glu	Trp	Ala	Ser	Lys	Ala	Lys	Ala	770	775	780	
Asn	Gly	Ile	Thr	Met	Tyr	Ala	Val	Gly	Val	Gly	Lys	Ala	Ile	Glu	Glu	785	790	795	800
Glu	Leu	Gln	Glu	Ile	Ala	Ser	Glu	Pro	Thr	Asn	Lys	His	Leu	Phe	Tyr	805	810	815	
Ala	Glu	Asp	Phe	Ser	Thr	Met	Asp	Glu	Ile	Ser	Glu	Lys	Leu	Lys	Lys	820	825	830	
Gly	Ile	Cys	Glu	Ala	Leu	Glu	Asp	Ser	Asp	Gly	Arg	Gln	Asp	Ser	Pro	835	840	845	
Ala	Gly	Glu	Leu	Pro	Lys	Thr	Val	Gln	Gln	Pro	Thr	Val	Gln	His	Arg	850	855	860	
Tyr	Leu	Phe	Glu	Glu	Asp	Asn	Leu	Leu	Arg	Ser	Thr	Gln	Lys	Leu	Ser	865	870	875	880
His	Ser	Thr	Lys	Pro	Ser	Gly	Ser	Pro	Leu	Glu	Glu	Lys	His	Asp	Gln	885	890	895	
Cys	Lys	Cys	Glu	Asn	Leu	Ile	Met	Phe	Gln	Asn	Leu	Ala	Asn	Glu	Glu	900	905	910	
Val	Arg	Lys	Leu	Thr	Gln	Arg	Leu	Glu	Glu	Met	Thr	Gln	Arg	Met	Glu	915	920	925	

Ala Leu Glu Asn Arg Leu Arg Tyr Arg
930 935

<210> 76
<211> 956
<212> PRT
<213> Mus musculus

<400> 76
Met Glu Lys Met Leu Val Gly Cys Leu Leu Met Leu Gly Gln Leu Phe
1 5 10 15

Leu Val Leu Pro Val Asp Gly Arg Glu Arg Pro Gln Ala Arg Phe Pro
20 25 30

Ser Arg Gly Arg His Val Arg Met Tyr Pro Gln Thr Ala Leu Leu Glu
35 40 45

Ser Ser Cys Glu Asn Lys Arg Ala Asp Leu Val Phe Ile Ile Asp Ser
50 55 60

Ser Arg Ser Val Asn Thr His Asp Tyr Ala Lys Val Lys Glu Phe Ile
65 70 75 80

Leu Asp Ile Leu Gln Phe Leu Asp Ile Gly Pro Asp Val Thr Arg Val
85 90 95

Gly Leu Leu Gln Tyr Gly Ser Thr Val Lys Asn Glu Phe Ser Leu Lys
100 105 110

Thr Phe Lys Arg Lys Ser Glu Val Glu Arg Ala Val Lys Arg Met Arg
115 120 125

His Leu Ser Thr Gly Thr Met Thr Gly Leu Ala Ile Gln Tyr Ala Leu
130 135 140

Asn Ile Ala Phe Ser Glu Ala Glu Gly Ala Arg Pro Leu Arg Glu Asn
145 150 155 160

Val Pro Arg Ile Ile Met Ile Val Thr Asp Gly Arg Pro Gln Asp Ser
165 170 175

Val Ala Glu Val Ala Ala Lys Ala Arg Asn Thr Gly Ile Leu Ile Phe
180 185 190

Ala Ile Gly Val Gly Gln Val Asp Leu Asn Thr Leu Lys Ala Ile Gly

195	200	205
Ser Glu Pro His Lys Asp His Val Phe Leu Val Ala Asn Phe Ser Gln		
210	215	220
Ile Glu Ser Leu Thr Ser Val Phe Gln Asn Lys Leu Cys Thr Val His		
225	230	235 240
Met Cys Ser Ile Leu Glu His Asn Cys Ala His Phe Cys Leu Asn Thr		
	245	250 255
Pro Gly Ser Tyr Ile Cys Lys Cys Lys Gln Gly Tyr Ile Leu Ser Thr		
	260	265 270
Asp Gln Lys Thr Cys Arg Ile Gln Asp Leu Cys Ala Thr Glu Asp His		
	275	280 285
Gly Cys Glu Gln Leu Cys Val Asn Met Leu Gly Ser Phe Val Cys Gln		
	290	295 300
Cys Tyr Ser Gly Tyr Thr Leu Ala Glu Asp Gly Lys Arg Cys Thr Ala		
305	310	315 320
Val Asp Tyr Cys Ala Ser Glu Asn His Gly Cys Glu His Glu Cys Val		
	325	330 335
Asn Ala Glu Ser Ser Tyr Leu Cys Arg Cys His Glu Gly Phe Ala Leu		
	340	345 350
Asn Ser Asp Lys Lys Thr Cys Ser Lys Ile Asp Tyr Cys Ala Ser Ser		
	355	360 365
Asn His Gly Cys Gln His Glu Cys Val Asn Ala Gln Thr Ser Ala Leu		
	370	375 380
Cys Arg Cys Leu Lys Gly Phe Met Leu Asn Pro Asp Arg Lys Thr Cys		
385	390	395 400
Arg Arg Ile Asn Tyr Cys Ala Leu Asn Lys Pro Gly Cys Glu His Glu		
	405	410 415
Cys Val Asn Thr Glu Glu Gly His Tyr Cys Arg Cys Arg Gln Gly Tyr		
	420	425 430
Asn Leu Asp Pro Asn Gly Lys Thr Cys Ser Arg Val Asp His Cys Ala		
	435	440 445
Gln Gln Asp His Gly Cys Glu Gln Leu Cys Leu Asn Thr Glu Glu Ser		

450		455		460
Phe Val Cys Gln Cys Ser Glu Gly Phe Leu Ile Asn Asp Asp Leu Lys				
465		470		480
Thr Cys Ser Arg Ala Asp Tyr Cys Leu Leu Ser Asn His Gly Cys Glu				
	485		490	495
Tyr Ser Cys Val Asn Thr Asp Lys Ser Phe Ala Cys Gln Cys Pro Glu				
	500		505	510
Gly His Val Leu Arg Ser Asp Gly Lys Thr Cys Ala Lys Leu Asp Ser				
	515		520	525
Cys Ala Leu Gly Asp His Gly Cys Glu His Ser Cys Val Ser Ser Glu				
	530		535	540
Asp Ser Phe Val Cys Gln Cys Phe Glu Gly Tyr Ile Leu Arg Asp Asp				
545		550		560
Gly Lys Thr Cys Arg Arg Lys Asp Val Cys Gln Asp Val Asn His Gly				
	565		570	575
Cys Glu His Leu Cys Val Asn Ser Gly Glu Ser Tyr Val Cys Lys Cys				
	580		585	590
Leu Glu Gly Phe Arg Leu Ala Glu Asp Gly Lys Arg Cys Arg Arg Lys				
	595		600	605
Asn Val Cys Lys Ser Thr Gln His Gly Cys Glu His Met Cys Val Asn				
	610		615	620
Asn Gly Asn Ser Tyr Leu Cys Arg Cys Ser Glu Gly Phe Val Leu Ala				
625		630		640
Glu Asp Gly Lys His Cys Lys Arg Cys Thr Glu Gly Pro Ile Asp Leu				
	645		650	655
Val Phe Val Ile Asp Gly Ser Lys Ser Leu Gly Glu Glu Asn Phe Glu				
	660		665	670
Thr Val Lys His Phe Val Thr Gly Ile Ile Asp Ser Leu Ala Val Ser				
	675		680	685
Pro Lys Ala Ala Arg Val Gly Leu Leu Gln Tyr Ser Thr Gln Val Arg				
	690		695	700
Thr Glu Phe Thr Leu Arg Gly Phe Ser Ser Ala Lys Glu Met Lys Lys				

705		710		715		720
Ala Val Ala His Met Lys Tyr Met Gly Lys Gly Ser Met Thr Gly Leu						
		725		730		735
Ala Leu Lys His Met Phe Glu Arg Ser Phe Thr Gln Val Glu Gly Ala						
		740		745		750
Arg Pro Pro Ser Thr Gln Val Pro Arg Val Ala Ile Val Phe Thr Asp						
		755		760		765
Gly Arg Ala Gln Asp Asp Val Ser Glu Trp Ala Ser Lys Ala Lys Ala						
		770		775		780
Asn Gly Ile Thr Met Tyr Ala Val Gly Val Gly Lys Ala Ile Glu Glu						
785		790		795		800
Glu Leu Gln Glu Ile Ala Ser Glu Pro Ile Asp Lys His Leu Phe Tyr						
		805		810		815
Ala Glu Asp Phe Ser Thr Met Gly Glu Ile Ser Glu Lys Leu Lys Glu						
		820		825		830
Gly Ile Cys Glu Ala Leu Glu Asp Ser Gly Gly Arg Gln Asp Ser Ala						
		835		840		845
Ala Trp Asp Leu Pro Gln Gln Ala His Gln Pro Thr Glu Pro Glu Pro						
		850		855		860
Val Thr Ile Lys Ile Lys Asp Leu Leu Ser Cys Ser Asn Phe Ala Val						
865		870		875		880
Gln His Arg Phe Leu Phe Glu Glu Asp Asn Leu Ser Arg Ser Thr Gln						
		885		890		895
Lys Leu Phe His Ser Thr Lys Ser Ser Gly Asn Pro Leu Glu Glu Ser						
		900		905		910
Gln Asp Gln Cys Lys Cys Glu Asn Leu Ile Leu Phe Gln Asn Val Ala						
		915		920		925
Asn Glu Glu Val Arg Lys Leu Thr Gln Arg Leu Glu Glu Met Thr Gln						
		930		935		940
Arg Met Glu Ala Leu Glu Asn Arg Leu Lys Tyr Arg						
945		950		955		

<210> 77
 <211> 956
 <212> PRT
 <213> Mus musculus

<400> 77

Met	Glu	Lys	Met	Leu	Val	Gly	Cys	Leu	Leu	Met	Leu	Gly	Gln	Leu	Phe
1				5					10					15	
Leu	Val	Leu	Pro	Val	Asp	Gly	Arg	Glu	Arg	Pro	Gln	Ala	Arg	Phe	Pro
			20					25					30		
Ser	Arg	Gly	Arg	His	Val	Arg	Met	Tyr	Pro	Gln	Thr	Ala	Leu	Leu	Glu
		35					40					45			
Ser	Ser	Cys	Glu	Asn	Lys	Arg	Ala	Asp	Leu	Val	Phe	Ile	Ile	Asp	Ser
	50					55					60				
Ser	Arg	Ser	Val	Asn	Thr	Tyr	Asp	Tyr	Ala	Lys	Val	Lys	Glu	Phe	Ile
65					70					75					80
Leu	Asp	Ile	Leu	Gln	Phe	Leu	Asp	Ile	Gly	Pro	Asp	Val	Thr	Arg	Val
				85					90					95	
Gly	Leu	Leu	Gln	Tyr	Gly	Ser	Thr	Val	Lys	Asn	Glu	Phe	Ser	Leu	Lys
			100					105					110		
Thr	Phe	Lys	Arg	Lys	Ser	Glu	Val	Glu	Arg	Ala	Val	Lys	Arg	Met	Arg
		115						120					125		
His	Leu	Ser	Thr	Gly	Thr	Met	Thr	Gly	Leu	Ala	Ile	Gln	Tyr	Ala	Leu
	130					135					140				
Asn	Ile	Ala	Phe	Ser	Glu	Ala	Glu	Gly	Ala	Arg	Pro	Leu	Arg	Glu	Asn
145					150					155					160
Val	Pro	Arg	Ile	Ile	Met	Ile	Val	Thr	Asp	Gly	Arg	Pro	Gln	Asp	Ser
				165					170					175	
Val	Ala	Glu	Val	Ala	Ala	Lys	Ala	Arg	Asn	Thr	Gly	Ile	Leu	Ile	Phe
			180					185					190		
Ala	Ile	Gly	Val	Gly	Gln	Val	Asp	Leu	Asn	Thr	Leu	Lys	Ala	Ile	Gly
		195					200					205			
Ser	Glu	Pro	His	Lys	Asp	His	Val	Phe	Leu	Val	Ala	Asn	Phe	Ser	Gln
	210					215					220				

Ile	Glu	Ser	Leu	Thr	Ser	Val	Phe	Gln	Asn	Lys	Leu	Cys	Thr	Val	His	225	230	235	240
Met	Cys	Ser	Val	Leu	Glu	His	Asn	Cys	Ala	His	Phe	Cys	Leu	Asn	Thr	245	250	255	
Pro	Gly	Ser	Tyr	Ile	Cys	Lys	Cys	Lys	Gln	Gly	Tyr	Ile	Leu	Ser	Thr	260	265	270	
Asp	Gln	Lys	Thr	Cys	Arg	Ile	Gln	Asp	Leu	Cys	Ala	Thr	Glu	Asp	His	275	280	285	
Gly	Cys	Glu	Gln	Leu	Cys	Val	Asn	Met	Leu	Gly	Ser	Phe	Val	Cys	Gln	290	295	300	
Cys	Tyr	Ser	Gly	Tyr	Thr	Leu	Ala	Glu	Asp	Gly	Lys	Arg	Cys	Thr	Ala	305	310	315	320
Met	Asp	Tyr	Cys	Ala	Ser	Glu	Asn	His	Gly	Cys	Glu	His	Glu	Cys	Val	325	330	335	
Asn	Ala	Glu	Ser	Ser	Tyr	Leu	Cys	Arg	Cys	His	Glu	Gly	Phe	Ala	Leu	340	345	350	
Asn	Ser	Asp	Lys	Lys	Thr	Cys	Ser	Lys	Ile	Asp	Tyr	Cys	Ala	Ser	Ser	355	360	365	
Asn	His	Gly	Cys	Gln	His	Glu	Cys	Val	Asn	Ala	Gln	Thr	Ser	Ala	Leu	370	375	380	
Cys	Arg	Cys	Leu	Lys	Gly	Phe	Met	Leu	Asn	Pro	Asp	Arg	Lys	Thr	Cys	385	390	395	400
Arg	Arg	Ile	Asn	Tyr	Cys	Ala	Leu	Asn	Lys	Pro	Gly	Cys	Glu	His	Glu	405	410	415	
Cys	Val	Asn	Thr	Glu	Glu	Gly	His	Tyr	Cys	Arg	Cys	Arg	Gln	Gly	Tyr	420	425	430	
Asn	Leu	Asp	Pro	Asn	Gly	Lys	Thr	Cys	Ser	Arg	Val	Asp	His	Cys	Ala	435	440	445	
Gln	Gln	Asp	His	Gly	Cys	Glu	Gln	Leu	Cys	Leu	Asn	Thr	Glu	Glu	Ser	450	455	460	
Phe	Val	Cys	Gln	Cys	Ser	Glu	Gly	Phe	Leu	Ile	Asn	Asp	Asp	Leu	Lys	465	470	475	480

Thr Cys Ser Arg Ala Asp Tyr Cys Leu Leu Ser Asn His Gly Cys Glu	485	490	495
Tyr Ser Cys Val Asn Thr Asp Lys Ser Phe Ala Cys Gln Cys Pro Glu	500	505	510
Gly His Val Leu Arg Ser Asp Gly Lys Thr Cys Ala Lys Leu Asp Ser	515	520	525
Cys Ala Leu Gly Asp His Gly Cys Glu His Ser Cys Val Ser Ser Glu	530	535	540
Asp Ser Phe Val Cys Gln Cys Phe Glu Gly Tyr Ile Leu Arg Asp Asp	545	550	555
Gly Lys Thr Cys Arg Arg Lys Asp Val Cys Gln Asp Val Asn His Gly	565	570	575
Cys Glu His Leu Cys Val Asn Ser Gly Glu Ser Tyr Val Cys Lys Cys	580	585	590
Leu Glu Gly Phe Arg Leu Ala Glu Asp Gly Lys Arg Cys Arg Arg Lys	595	600	605
Asn Val Cys Lys Ser Thr Gln His Gly Cys Glu His Met Cys Val Asn	610	615	620
Asn Gly Asn Ser Tyr Leu Cys Arg Cys Ser Glu Gly Phe Val Leu Ala	625	630	635
Glu Asp Gly Lys His Cys Lys Arg Cys Thr Glu Gly Pro Ile Asp Leu	645	650	655
Val Phe Val Ile Asp Gly Ser Lys Ser Leu Gly Glu Glu Asn Phe Glu	660	665	670
Thr Val Lys His Phe Val Thr Gly Ile Ile Asp Ser Leu Ala Val Ser	675	680	685
Pro Lys Ala Ala Arg Val Gly Leu Leu Gln Tyr Ser Thr Gln Val Arg	690	695	700
Thr Glu Phe Thr Leu Arg Gly Phe Ser Ser Ala Lys Glu Met Lys Lys	705	710	715
Ala Val Thr His Met Lys Tyr Met Gly Lys Gly Ser Met Thr Gly Leu	725	730	735

Ala	Leu	Lys	His	Met	Phe	Glu	Arg	Ser	Phe	Thr	Gln	Val	Glu	Gly	Ala	740	745	750	
Arg	Pro	Pro	Ser	Thr	Gln	Val	Pro	Arg	Val	Ala	Ile	Val	Phe	Thr	Asp	755	760	765	
Gly	Arg	Ala	Gln	Asp	Asp	Val	Ser	Glu	Trp	Ala	Ser	Lys	Ala	Lys	Ala	770	775	780	
Asn	Gly	Ile	Thr	Met	Tyr	Ala	Val	Gly	Val	Gly	Lys	Ala	Ile	Glu	Glu	785	790	795	800
Glu	Leu	Gln	Glu	Ile	Ala	Ser	Glu	Pro	Ile	Asp	Lys	His	Leu	Phe	Tyr	805	810	815	
Ala	Glu	Asp	Phe	Ser	Thr	Met	Gly	Glu	Ile	Ser	Glu	Lys	Leu	Lys	Glu	820	825	830	
Gly	Ile	Cys	Glu	Ala	Leu	Glu	Asp	Ser	Gly	Gly	Arg	Gln	Asp	Ser	Ala	835	840	845	
Ala	Trp	Asp	Leu	Pro	Gln	Gln	Ala	His	Gln	Pro	Thr	Glu	Pro	Glu	Pro	850	855	860	
Val	Thr	Ile	Lys	Ile	Lys	Asp	Leu	Leu	Ser	Cys	Ser	Asn	Phe	Ala	Val	865	870	875	880
Gln	His	Arg	Phe	Leu	Phe	Glu	Glu	Asp	Asn	Leu	Ser	Arg	Ser	Thr	Gln	885	890	895	
Lys	Leu	Phe	His	Ser	Thr	Lys	Ser	Ser	Gly	Asn	Pro	Leu	Glu	Glu	Ser	900	905	910	
Gln	Asp	Gln	Cys	Lys	Cys	Glu	Asn	Leu	Ile	Leu	Phe	Gln	Asn	Val	Ala	915	920	925	
Asn	Glu	Glu	Val	Arg	Lys	Leu	Thr	Gln	Arg	Leu	Glu	Glu	Met	Thr	Gln	930	935	940	
Arg	Met	Glu	Ala	Leu	Glu	Asn	Arg	Leu	Lys	Tyr	Arg					945	950	955	

<210> 78

<211> 200

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Von Willebrand
Factor type A doman sequence

<400> 78

Asp	Ile	Val	Phe	Leu	Leu	Asp	Gly	Ser	Gly	Ser	Ile	Gly	Ser	Gln	Asn
1				5					10					15	
Phe	Glu	Arg	Val	Lys	Asp	Phe	Val	Glu	Arg	Val	Val	Glu	Arg	Leu	Asp
			20					25					30		
Val	Gly	Pro	Arg	Asp	Lys	Lys	Glu	Glu	Asp	Ala	Val	Arg	Val	Gly	Leu
			35				40					45			
Val	Gln	Tyr	Ser	Asp	Asn	Val	Arg	Thr	Glu	Ile	Lys	Phe	Lys	Leu	Asn
	50					55					60				
Asp	Tyr	Gln	Asn	Lys	Asp	Glu	Val	Leu	Gln	Ala	Leu	Gln	Lys	Ile	Arg
65				70						75				80	
Tyr	Glu	Asp	Tyr	Tyr	Gly	Gly	Gly	Gly	Thr	Asn	Thr	Gly	Ala	Ala	Leu
				85					90					95	
Gln	Tyr	Val	Val	Arg	Asn	Leu	Phe	Thr	Glu	Ala	Ser	Gly	Ser	Arg	Ile
			100					105					110		
Glu	Pro	Val	Ala	Glu	Glu	Gly	Ala	Pro	Lys	Val	Leu	Val	Val	Leu	Thr
			115				120					125			
Asp	Gly	Arg	Ser	Gln	Asp	Asp	Pro	Ser	Pro	Thr	Ile	Asp	Ile	Arg	Asp
	130					135					140				
Val	Leu	Asn	Glu	Leu	Lys	Lys	Glu	Ala	Gly	Val	Glu	Val	Phe	Ala	Ile
145					150					155				160	
Gly	Val	Gly	Asn	Ala	Asp	Asn	Asn	Asn	Leu	Glu	Glu	Leu	Arg	Glu	Ile
			165						170					175	
Ala	Ser	Lys	Pro	Asp	Asp	His	Val	Phe	Lys	Val	Ser	Asp	Phe	Glu	Ala
			180					185					190		
Leu	Asp	Thr	Leu	Gln	Glu	Leu	Leu								
			195			200									

<210> 79

<211> 176

<212> PRT

<213> Homo sapiens

<400> 79

Asp	Leu	Val	Phe	Ile	Ile	Asp	Ser	Ser	Arg	Ser	Val	Asn	Thr	His	Asp
1				5					10					15	
Tyr	Ala	Lys	Val	Lys	Glu	Phe	Ile	Val	Asp	Ile	Leu	Gln	Phe	Leu	Asp
			20					25					30		
Ile	Gly	Pro	Asp	Val	Thr	Arg	Val	Gly	Leu	Leu	Gln	Tyr	Gly	Ser	Thr
			35				40					45			
Val	Lys	Asn	Glu	Phe	Ser	Leu	Lys	Thr	Phe	Lys	Arg	Lys	Ser	Glu	Val
	50					55					60				
Glu	Arg	Ala	Val	Lys	Arg	Met	Arg	His	Leu	Ser	Thr	Gly	Thr	Met	Thr
65					70					75					80
Gly	Leu	Ala	Ile	Gln	Tyr	Ala	Leu	Asn	Ile	Ala	Phe	Ser	Glu	Ala	Glu
				85					90					95	
Gly	Ala	Arg	Pro	Leu	Arg	Glu	Asn	Val	Pro	Arg	Val	Ile	Met	Ile	Val
			100					105					110		
Thr	Asp	Gly	Arg	Pro	Gln	Asp	Ser	Val	Ala	Glu	Val	Ala	Ala	Lys	Ala
		115					120					125			
Arg	Asp	Thr	Gly	Ile	Leu	Ile	Phe	Ala	Ile	Gly	Val	Gly	Gln	Val	Asp
		130					135					140			
Phe	Asn	Thr	Leu	Lys	Ser	Ile	Gly	Ser	Glu	Pro	His	Glu	Asp	His	Val
145					150					155					160
Phe	Leu	Val	Ala	Asn	Phe	Ser	Gln	Ile	Glu	Thr	Leu	Thr	Ser	Val	Phe
				165					170					175	

<210> 80

<211> 200

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Von Willebrand
Factor type A domain sequence

<400> 80

Asp Ile Val Phe Leu Leu Asp Gly Ser Gly Ser Ile Gly Ser Gln Asn
1 5 10 15

Phe Glu Arg Val Lys Asp Phe Val Glu Arg Val Val Glu Arg Leu Asp
20 25 30

Val Gly Pro Arg Asp Lys Lys Glu Glu Asp Ala Val Arg Val Gly Leu
35 40 45

Val Gln Tyr Ser Asp Asn Val Arg Thr Glu Ile Lys Phe Lys Leu Asn
50 55 60

Asp Tyr Gln Asn Lys Asp Glu Val Leu Gln Ala Leu Gln Lys Ile Arg
65 70 75 80

Tyr Glu Asp Tyr Tyr Gly Gly Gly Gly Thr Asn Thr Gly Ala Ala Leu
85 90 95

Gln Tyr Val Val Arg Asn Leu Phe Thr Glu Ala Ser Gly Ser Arg Ile
100 105 110

Glu Pro Val Ala Glu Glu Gly Ala Pro Lys Val Leu Val Val Leu Thr
115 120 125

Asp Gly Arg Ser Gln Asp Asp Pro Ser Pro Thr Ile Asp Ile Arg Asp
130 135 140

Val Leu Asn Glu Leu Lys Lys Glu Ala Gly Val Glu Val Phe Ala Ile
145 150 155 160

Gly Val Gly Asn Ala Asp Asn Asn Asn Leu Glu Glu Leu Arg Glu Ile
165 170 175

Ala Ser Lys Pro Asp Asp His Val Phe Lys Val Ser Asp Phe Glu Ala
180 185 190

Leu Asp Thr Leu Gln Glu Leu Leu
195 200

<210> 81

<211> 176

<212> PRT

<213> Homo sapiens

<400> 81

Asp	Leu	Val	Phe	Val	Ile	Asp	Gly	Ser	Lys	Ser	Leu	Gly	Glu	Glu	Asn
1				5					10					15	
Phe	Glu	Val	Val	Lys	Gln	Phe	Val	Thr	Gly	Ile	Ile	Asp	Ser	Leu	Thr
			20					25					30		
Ile	Ser	Pro	Lys	Ala	Ala	Arg	Val	Gly	Leu	Leu	Gln	Tyr	Ser	Thr	Gln
		35					40					45			
Val	His	Thr	Glu	Phe	Thr	Leu	Arg	Asn	Phe	Asn	Ser	Ala	Lys	Asp	Met
	50					55					60				
Lys	Lys	Ala	Val	Ala	His	Met	Lys	Tyr	Met	Gly	Lys	Gly	Ser	Met	Thr
65					70					75					80
Gly	Leu	Ala	Leu	Lys	His	Met	Phe	Glu	Arg	Ser	Phe	Thr	Gln	Gly	Glu
				85					90					95	
Gly	Ala	Arg	Pro	Phe	Ser	Thr	Arg	Val	Pro	Arg	Ala	Ala	Ile	Val	Phe
			100					105					110		
Thr	Asp	Gly	Arg	Ala	Gln	Asp	Asp	Val	Ser	Glu	Trp	Ala	Ser	Lys	Ala
		115					120					125			
Lys	Ala	Asn	Gly	Ile	Thr	Met	Tyr	Ala	Val	Gly	Val	Gly	Lys	Ala	Ile
	130					135					140				
Glu	Glu	Glu	Leu	Gln	Glu	Ile	Ala	Ser	Glu	Pro	Thr	Asn	Lys	His	Leu
145					150					155					160
Phe	Tyr	Ala	Glu	Asp	Phe	Ser	Thr	Met	Asp	Glu	Ile	Ser	Glu	Lys	Leu
				165					170					175	

<210> 82

<211> 45

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: EGF domain
sequence

<400> 82

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr

1	5	10	15
Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro			
20	25	30	

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 83
 <211> 36
 <212> PRT
 <213> Homo sapiens

<400> 83
Cys Ser Thr Leu Glu His Asn Cys Ala His Phe Cys Ile Asn Ile Pro
1 5 10 15

Gly Ser Tyr Val Cys Arg Cys Lys Gln Gly Tyr Ile Leu Asn Ser Asp
20 25 30

Gln Thr Thr Cys
35

<210> 84
 <211> 45
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: EGF domain
 sequence

<400> 84
Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 85
 <211> 36
 <212> PRT

<213> Homo sapiens

<400> 85

Cys Ala Met Glu Asp His Asn Cys Glu Gln Leu Cys Val Asn Val Pro
1 5 10 15
Gly Ser Phe Val Cys Gln Cys Tyr Ser Gly Tyr Ala Leu Ala Glu Asp
20 25 30
Gly Lys Arg Cys
35

<210> 86

<211> 45

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: EGF domain
sequence

<400> 86

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15
Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30
Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 87

<211> 36

<212> PRT

<213> Homo sapiens

<400> 87

Cys Ala Ser Glu Asn His Gly Cys Glu His Glu Cys Val Asn Ala Asp
1 5 10 15
Gly Ser Tyr Leu Cys Gln Cys His Glu Gly Phe Ala Leu Asn Pro Asp
20 25 30
Glu Lys Thr Cys
35

<210> 88
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: EGF domain
sequence

<400> 88
Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15
Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30
Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 89
<211> 36
<212> PRT
<213> Homo sapiens

<400> 89
Cys Ala Ser Ser Asn His Gly Cys Gln Tyr Glu Cys Val Asn Thr Asp
1 5 10 15
Asp Ser Tyr Ser Cys His Cys Leu Lys Gly Phe Thr Leu Asn Pro Asp
20 25 30
Lys Lys Thr Cys
35

<210> 90
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: EGF domain
sequence

<400> 90
Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr

1 5 10 15
 Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
 20 25 30
 Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
 35 40 45

<210> 91
 <211> 81
 <212> PRT
 <213> Homo sapiens

<400> 91
 Cys Ala Leu Asn Lys Pro Gly Cys Glu Cys Ala Pro Asn Asn Pro Cys
 1 5 10 15
 Ser Asn Gly Gly Thr Cys Val Asn Thr Pro Gly Gly Ser Ser Asp Asn
 20 25 30
 Phe Gly Gly Tyr Thr Cys Glu Cys Pro Pro Gly Asp Tyr Tyr Leu Ser
 35 40 45
 Tyr Thr Gly Lys Arg Cys His Glu Cys Val Asn Met Glu Glu Ser Tyr
 50 55 60
 Tyr Cys Arg Cys His Arg Gly Tyr Thr Leu Asp Pro Asn Gly Lys Pro
 65 70 75 80

Cys

<210> 92
 <211> 81
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: EGF domain
 sequence

<400> 92
 Cys Ala Leu Asn Lys Pro Gly Cys Glu Cys Ala Pro Asn Asn Pro Cys
 1 5 10 15
 Ser Asn Gly Gly Thr Cys Val Asn Thr Pro Gly Gly Ser Ser Asp Asn

20 25 30
 Phe Gly Gly Tyr Thr Cys Glu Cys Pro Pro Gly Asp Tyr Tyr Leu Ser
 35 40 45
 Tyr Thr Gly Lys Arg Cys His Glu Cys Val Asn Met Glu Glu Ser Tyr
 50 55 60
 Tyr Cys Arg Cys His Arg Gly Tyr Thr Leu Asp Pro Asn Gly Lys Pro
 65 70 75 80
 Cys

<210> 93
 <211> 36
 <212> PRT
 <213> Homo sapiens

<400> 93
 Cys Ala Gln Gln Asp His Gly Cys Glu Gln Leu Cys Leu Asn Thr Glu
 1 5 10 15
 Asp Ser Phe Val Cys Gln Cys Ser Glu Gly Phe Leu Ile Asn Glu Asp
 20 25 30
 Leu Lys Thr Cys
 35

<210> 94
 <211> 45
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: EGF domain
 sequence

<400> 94
 Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
 1 5 10 15
 Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
 20 25 30
 Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys

35

40

45

<210> 95

<211> 36

<212> PRT

<213> Homo sapiens

<400> 95

Cys Leu Leu Ser Asp His Gly Cys Glu Tyr Ser Cys Val Asn Met Asp

1

5

10

15

Arg Ser Phe Ala Cys Gln Cys Pro Glu Gly His Val Leu Arg Ser Asp

20

25

30

Gly Lys Thr Cys

35

<210> 96

<211> 45

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: EGF domain
sequence

<400> 96

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr

1

5

10

15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro

20

25

30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys

35

40

45

<210> 97

<211> 36

<212> PRT

<213> Homo sapiens

<400> 97

Cys Ala Leu Gly Asp His Gly Cys Glu His Ser Cys Val Ser Ser Glu

1

5

10

15

Asp Ser Phe Val Cys Gln Cys Phe Glu Gly Tyr Ile Leu Arg Glu Asp
20 25 30

Gly Lys Thr Cys
35

<210> 98

<211> 45

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: EGF domain
sequence

<400> 98

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 99

<211> 36

<212> PRT

<213> Homo sapiens

<400> 99

Cys Gln Ala Ile Asp His Gly Cys Glu His Ile Cys Val Asn Ser Asp
1 5 10 15

Asp Ser Tyr Thr Cys Glu Cys Leu Glu Gly Phe Arg Leu Thr Glu Asp
20 25 30

Gly Lys Arg Cys
35

<210> 100

<211> 45

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: EGF domain
sequence

<400> 100

Cys Ala Pro Asn Asn Pro Cys Ser Asn Gly Gly Thr Cys Val Asn Thr
1 5 10 15

Pro Gly Gly Ser Ser Asp Asn Phe Gly Gly Tyr Thr Cys Glu Cys Pro
20 25 30

Pro Gly Asp Tyr Tyr Leu Ser Tyr Thr Gly Lys Arg Cys
35 40 45

<210> 101

<212> PRT

<213> Homo sapiens

<400> 101

<210> 102

<211> 464

<212> PRT

<213> Rattus norvegicus

<400> 102

Met Val Leu Ala Phe Trp Leu Ala Phe Phe Thr Tyr Thr Trp Ile Thr
1 5 10 15

Leu Met Leu Asp Ala Ser Ala Val Lys Glu Pro His Gln Gln Cys Leu
20 25 30

Ser Ser Pro Lys Gln Thr Arg Ile Arg Glu Thr Arg Met Arg Lys Asp
35 40 45

Asp Leu Thr Lys Val Trp Pro Leu Lys Arg Glu Gln Leu Leu His Ile
50 55 60

Glu Asp His Asp Phe Ser Thr Arg Pro Gly Phe Gly Gly Ser Pro Val
65 70 75 80

Pro Val Gly Ile Asp Val Gln Val Glu Ser Ile Asp Ser Ile Ser Glu
85 90 95

Val Asn Met Asp Phe Thr Met Thr Phe Tyr Leu Arg His Tyr Trp Lys

355		360		365
Met Tyr Asn Ile Asp Ala Val Gln Ala Met Ala Phe Asp Gly Cys Tyr				
370		375		380
His Asp Gly Glu Thr Asp Val Asp Gln Thr Ser Phe Phe Leu His Ser				
385		390		395 400
Glu Glu Asp Ser Met Arg Thr Lys Phe Thr Gly Ser Pro Cys Ala Asp				
	405		410	415
Ser Ser Gln Ile Lys Arg Lys Ser Leu Gly Gly Asn Val Gly Arg Ile				
	420		425	430
Ile Leu Glu Asn Asn His Val Ile Asp Thr Tyr Ser Arg Ile Val Phe				
	435		440	445
Pro Val Val Tyr Ile Ile Phe Asn Leu Phe Tyr Trp Gly Ile Tyr Val				
	450		455	460

<210> 103
 <211> 470
 <212> PRT
 <213> Morone americana

<400> 103
Met Arg Val Val Leu Leu Ala Leu Arg Leu Met Cys Leu Ala Trp Leu
1 5 10 15
Trp Pro Val Thr Gln Leu Asn Ser Ser Thr Asn Lys Arg Arg His Lys
20 25 30
Glu Leu Tyr Ile Gly Glu Asn Thr Lys Gln Lys His Gly Gly Arg Val
35 40 45
Asp Leu Lys Leu Lys Lys Val Asp Ser Thr Lys Ser Met Leu Ile Lys
50 55 60
Ser Glu Gln Leu Leu Arg Ile Glu Asp His Asp Phe Ala Met Arg Pro
65 70 75 80
Gly Phe Gly Gly Ser Ala Ile Pro Val Gly Ile Asp Val Gln Val Glu
85 90 95

Ser Ile Asp Ser Ile Ser Glu Val Asn Met Asp Phe Thr Met Thr Leu
 100 105 110
 Tyr Leu Arg His Tyr Trp Gln Asp Asp Arg Pro Ala Phe Pro Ser Ser
 115 120 125
 Ser Asn Lys Ser Arg Thr Phe Asp Ala Arg Leu Val Lys Ile Trp Val
 130 135 140
 Pro Asp Val Phe Phe Val His Ser Lys Arg Ser Phe Ile His Asp Thr
 145 150 155 160
 Thr Met Glu Asn Ile Met Leu Arg Val Tyr Pro Asp Gly Asn Ile Leu
 165 170 175
 Tyr Ser Val Arg Ile Thr Val Thr Ala Leu Cys Ser Met Asp Phe Ser
 180 185 190
 Ser Phe Pro Leu Asp Thr Gln Asn Cys Ser Leu Glu Leu Glu Ser Tyr
 195 200 205
 Ala Tyr Ala Tyr Asn Glu Asn Asp Leu Cys Ser Thr Gly Arg Thr Gly
 210 215 220
 Thr Ile Pro Leu Arg Thr Asp Glu Ile Val Leu Ser Gln Phe Phe Val
 225 230 235 240
 Glu Asp Phe Gln Pro Ser Phe Gly Leu Ala Phe Tyr Ser Ser Thr Gly
 245 250 255
 Trp Tyr Asn Arg Leu Tyr Ile Asn Phe Ile Leu Arg Arg His Ile Phe
 260 265 270
 Phe Phe Met Leu Gln Thr Tyr Phe Pro Thr Met Leu Met Val Met Leu
 275 280 285
 Ser Trp Val Ser Phe Trp Ile Asp Arg Arg Ala Val Pro Ala Arg Val
 290 295 300
 Ser Leu Gly Ile Thr Thr Val Leu Thr Met Ser Thr Ile Ile Thr Gly
 305 310 315 320
 Val Ser Ala Ser Met Pro Gln Val Ser Tyr Val Lys Ala Val Asp Ile
 325 330 335
 Tyr Leu Trp Ala Ser Phe Leu Phe Val Phe Leu Ser Val Ile Glu Tyr
 340 345 350

Ala Ala Val Asn Tyr Phe Thr Thr Val Glu Glu Met Lys Lys Leu Lys
355 360 365

Ser Ala Lys Ile Pro Asn Tyr Asn Ala Ser Gln Ala Met Ala Phe Asp
370 375 380

Gly Cys Phe His Asp Asn Glu Ile Asp Leu Thr Ser Phe Pro Glu Val
385 390 395 400

Ser Ser Thr Pro Asn Thr Glu Arg Asn Thr Gln Ser Arg Asn Ser Asn
405 410 415

Ala Ser Ala Pro Thr Glu Gly Thr Arg Leu Arg Arg Lys His Pro Leu
420 425 430

Arg Gln Asn Leu Ser Phe Ile Met Ser Asn Ser Tyr Met Ile Asp Ser
435 440 445

Tyr Ser Arg Val Ile Phe Pro Leu Ala Tyr Leu Leu Phe Asn Ile Ile
450 455 460

Tyr Trp Ser Met Tyr Ala
465 470

<210> 104

<211> 473

<212> PRT

<213> Homo sapiens

<400> 104

Met Arg Phe Gly Ile Phe Leu Leu Trp Trp Gly Trp Val Leu Ala Thr
1 5 10 15

Glu Ser Arg Met His Trp Pro Gly Arg Glu Val His Glu Met Ser Lys
20 25 30

Lys Gly Arg Pro Gln Arg Gln Arg Arg Glu Val His Glu Asp Ala His
35 40 45

Lys Gln Val Ser Pro Ile Leu Arg Arg Ser Pro Asp Ile Thr Lys Ser
50 55 60

Pro Leu Thr Lys Ser Glu Gln Leu Leu Arg Ile Asp Asp His Asp Phe
65 70 75 80

Ser Met Arg Pro Gly Phe Gly Gly Pro Ala Ile Pro Val Gly Val Asp
85 90 95

Val	Gln	Val	Glu	Ser	Leu	Asp	Ser	Ile	Ser	Glu	Val	Asp	Met	Asp	Phe			
			100					105					110					
Thr	Met	Thr	Leu	Tyr	Leu	Arg	His	Tyr	Trp	Lys	Asp	Glu	Arg	Leu	Ser			
		115					120					125						
Phe	Pro	Ser	Thr	Asn	Asn	Leu	Ser	Met	Thr	Phe	Asp	Gly	Arg	Leu	Val			
	130					135					140							
Lys	Lys	Ile	Trp	Val	Pro	Asp	Met	Phe	Phe	Val	His	Ser	Lys	Arg	Ser			
145					150					155					160			
Phe	Ile	His	Asp	Thr	Thr	Thr	Asp	Asn	Val	Met	Leu	Arg	Val	Gln	Pro			
				165					170					175				
Asp	Gly	Lys	Val	Leu	Tyr	Ser	Leu	Arg	Val	Thr	Val	Thr	Ala	Met	Cys			
			180					185					190					
Asn	Met	Asp	Phe	Ser	Arg	Phe	Pro	Leu	Asp	Thr	Gln	Thr	Cys	Ser	Leu			
		195					200					205						
Glu	Ile	Glu	Ser	Tyr	Ala	Tyr	Thr	Glu	Asp	Asp	Leu	Met	Leu	Tyr	Trp			
	210					215					220							
Lys	Lys	Gly	Asn	Asp	Ser	Leu	Lys	Thr	Asp	Glu	Arg	Ile	Ser	Leu	Ser			
225					230					235					240			
Gln	Phe	Leu	Ile	Gln	Glu	Phe	His	Thr	Thr	Thr	Lys	Leu	Ala	Phe	Tyr			
				245					250					255				
Ser	Ser	Thr	Gly	Trp	Tyr	Asn	Arg	Leu	Tyr	Ile	Asn	Phe	Thr	Leu	Arg			
			260					265					270					
Arg	His	Ile	Phe	Phe	Phe	Leu	Leu	Gln	Thr	Tyr	Phe	Pro	Ala	Thr	Leu			
		275					280					285						
Met	Val	Met	Leu	Ser	Trp	Val	Ser	Phe	Trp	Ile	Asp	Arg	Arg	Ala	Val			
	290					295					300							
Pro	Ala	Arg	Val	Pro	Leu	Gly	Ile	Thr	Thr	Val	Leu	Thr	Met	Ser	Thr			
305					310					315					320			
Ile	Ile	Thr	Gly	Val	Asn	Ala	Ser	Met	Pro	Arg	Val	Ser	Tyr	Ile	Lys			
				325					330					335				
Ala	Val	Asp	Ile	Tyr	Leu	Trp	Val	Ser	Phe	Val	Phe	Val	Phe	Leu	Ser			
			340					345					350					

Val Leu Glu Tyr Ala Ala Val Asn Tyr Leu Thr Thr Val Gln Glu Arg
 355 360 365

Lys Glu Gln Lys Leu Arg Glu Lys Leu Pro Cys Thr Ser Gly Leu Pro
 370 375 380

Pro Pro Arg Thr Ala Met Leu Asp Gly Asn Tyr Ser Asp Gly Glu Val
 385 390 395 400

Asn Asp Leu Asp Asn Tyr Met Pro Glu Asn Gly Glu Lys Pro Asp Arg
 405 410 415

Met Met Val Gln Leu Thr Leu Ala Ser Glu Arg Ser Ser Pro Gln Arg
 420 425 430

Lys Ser Gln Arg Ser Ser Tyr Val Ser Met Arg Ile Asp Thr His Ala
 435 440 445

Ile Asp Lys Tyr Ser Arg Ile Ile Phe Pro Ala Ala Tyr Ile Leu Phe
 450 455 460

Asn Leu Ile Tyr Trp Ser Ile Phe Ser
 465 470

<210> 105

<211> 474

<212> PRT

<213> Rattus norvegicus

<400> 105

Met Lys Phe Gly Ile Phe Leu Leu Trp Trp Gly Trp Val Leu Ala Ala
 1 5 10 15

Glu Ser Thr Val His Trp Pro Gly Arg Glu Val His Glu Pro Ser Lys
 20 25 30

Lys Gly Ser Arg Pro Gln Arg Gln Arg Arg Gly Ala His Asp Asp Ala
 35 40 45

His Lys Gln Gly Ser Pro Ile Leu Lys Arg Ser Ser Asp Ile Thr Lys
 50 55 60

Ser Pro Leu Thr Lys Ser Glu Gln Leu Leu Arg Ile Asp Asp His Asp
 65 70 75 80

Phe Ser Met Arg Pro Gly Phe Gly Gly Pro Ala Ile Pro Val Gly Val

	85		90		95
Asp Val Gln Val Glu Ser Leu Asp Ser Ile Ser Glu Val Asp Met Asp	100		105		110
Phe Thr Met Thr Leu Tyr Leu Arg His Tyr Trp Lys Asp Glu Arg Leu	115		120		125
Ser Phe Pro Ser Thr Asn Asn Leu Ser Met Thr Phe Asp Gly Arg Leu	130		135		140
Val Lys Lys Ile Trp Val Pro Asp Met Phe Phe Val His Ser Lys Arg	145		150		155
Ser Phe Ile His Asp Thr Thr Thr Asp Asn Val Met Leu Arg Val Gln		165		170	175
Pro Asp Gly Lys Val Leu Tyr Ser Leu Arg Val Thr Val Thr Ala Met		180		185	190
Cys Asn Met Asp Phe Ser Arg Phe Pro Leu Asp Thr Gln Thr Cys Ser		195		200	205
Leu Glu Ile Glu Ser Tyr Ala Tyr Thr Glu Asp Asp Leu Met Leu Tyr		210		215	220
Trp Lys Lys Gly Asn Asp Ser Leu Lys Thr Asp Glu Arg Ile Ser Leu		225		230	235
Ser Gln Phe Leu Ile Gln Glu Phe His Thr Thr Thr Lys Leu Ala Phe		245		250	255
Tyr Ser Ser Thr Gly Trp Tyr Asn Arg Leu Tyr Ile Asn Phe Thr Leu		260		265	270
Arg Arg His Ile Phe Phe Phe Leu Leu Gln Thr Tyr Phe Pro Ala Thr		275		280	285
Leu Met Val Met Leu Ser Trp Val Ser Phe Trp Ile Asp Arg Arg Ala		290		295	300
Val Pro Ala Arg Val Pro Leu Gly Ile Thr Thr Val Leu Thr Met Ser		305		310	315
Thr Ile Ile Thr Gly Val Asn Ala Ser Met Pro Arg Val Ser Tyr Ile		325		330	335
Lys Ala Val Asp Ile Tyr Leu Trp Val Ser Phe Val Phe Val Phe Leu					

340	345	350
Ser Val Leu Glu Tyr Ala Ala	Val Asn Tyr Leu Thr Thr	Val Gln Glu
355	360	365
Arg Lys Glu Arg Lys Leu Arg	Glu Lys Ile Ser Cys Thr	Cys Gly Leu
370	375	380
Pro Gln Pro Arg Gly Val Met	Leu Asp Ser Ser Tyr Ser	Asp Gly Glu
385	390	395
Val Asn Asp Leu Gly Gly Tyr	Met Pro Glu Asn Gly Glu	Lys Pro Asp
405	410	415
Arg Met Met Val Gln Leu Thr	Leu Ala Ser Glu Arg Gly	Ser Pro Gln
420	425	430
Arg Lys Ser Gln Arg Gly Ser	Tyr Val Ser Met Arg Ile	Asn Thr His
435	440	445
Ala Ile Asp Lys Tyr Ser Arg	Ile Ile Phe Pro Ala Ala	Tyr Ile Leu
450	455	460
Phe Asn Leu Ile Tyr Trp Ser	Ile Phe Ser	
465	470	

<210> 106
 <211> 474
 <212> PRT
 <213> Mus musculus

<400> 106
Met Lys Phe Gly Ile Phe Leu Leu Trp Trp Gly Trp Val Leu Ala Ala
1 5 10 15
Glu Ser Thr Ala His Trp Pro Gly Arg Glu Val His Glu Pro Ser Arg
20 25 30
Lys Gly Ser Arg Pro Gln Arg Gln Arg Arg Gly Ala His Asp Asp Ala
35 40 45
His Lys Gln Gly Ser Pro Ile Leu Arg Arg Ser Ser Asp Ile Thr Lys
50 55 60
Ser Pro Leu Thr Lys Ser Glu Gln Leu Leu Arg Ile Asp Asp His Asp
65 70 75 80

Phe	Ser	Met	Arg	Pro	Gly	Phe	Gly	Gly	Pro	Ala	Ile	Pro	Val	Gly	Val	85	90	95
Asp	Val	Gln	Val	Glu	Ser	Leu	Asp	Ser	Ile	Ser	Glu	Val	Asp	Met	Asp	100	105	110
Phe	Thr	Met	Thr	Leu	Tyr	Leu	Arg	His	Tyr	Trp	Lys	Asp	Glu	Arg	Leu	115	120	125
Ser	Phe	Pro	Ser	Ser	Asn	Asn	Leu	Ser	Met	Thr	Phe	Asp	Gly	Arg	Leu	130	135	140
Val	Lys	Lys	Ile	Trp	Val	Pro	Asp	Met	Phe	Phe	Val	His	Ser	Lys	Arg	145	150	155
Ser	Phe	Ile	His	Asp	Thr	Thr	Thr	Asp	Asn	Val	Met	Leu	Arg	Val	Gln	165	170	175
Pro	Asp	Gly	Lys	Val	Leu	Tyr	Ser	Leu	Arg	Val	Thr	Val	Thr	Ala	Met	180	185	190
Cys	Asn	Met	Asp	Phe	Ser	Arg	Phe	Pro	Leu	Asp	Thr	Gln	Thr	Cys	Ser	195	200	205
Leu	Glu	Ile	Glu	Ser	Tyr	Ala	Tyr	Thr	Glu	Asp	Asp	Leu	Met	Leu	Tyr	210	215	220
Trp	Lys	Lys	Gly	Asn	Asp	Ser	Leu	Lys	Thr	Asp	Glu	Arg	Ile	Ser	Leu	225	230	235
Ser	Gln	Phe	Leu	Ile	Gln	Glu	Phe	His	Thr	Thr	Thr	Lys	Leu	Ala	Phe	245	250	255
Tyr	Ser	Ser	Thr	Gly	Trp	Tyr	Asn	Arg	Leu	Tyr	Ile	Asn	Phe	Thr	Leu	260	265	270
Arg	Arg	His	Ile	Phe	Phe	Phe	Leu	Leu	Gln	Thr	Tyr	Phe	Pro	Ala	Thr	275	280	285
Leu	Met	Val	Met	Leu	Ser	Trp	Val	Ser	Phe	Trp	Ile	Asp	Arg	Arg	Ala	290	295	300
Val	Pro	Ala	Arg	Val	Pro	Leu	Gly	Ile	Thr	Thr	Val	Leu	Thr	Met	Ser	305	310	315
Thr	Ile	Ile	Thr	Gly	Val	Asn	Ala	Ser	Met	Pro	Arg	Val	Ser	Tyr	Ile	325	330	335

Lys Ala Val Asp Ile Tyr Leu Trp Val Ser Phe Val Phe Val Phe Leu
340 345 350

Ser Val Leu Glu Tyr Ala Ala Val Asn Tyr Leu Thr Thr Val Gln Glu
355 360 365

Arg Lys Glu Arg Lys Leu Arg Glu Lys Ile Ser Cys Thr Cys Gly Leu
370 375 380

Pro Gln Pro Arg Gly Val Met Leu Asp Ser Ser Tyr Ser Asp Gly Glu
385 390 395 400

Val Asn Asp Leu Gly Gly Tyr Leu Pro Glu Asn Gly Glu Lys Pro Asp
405 410 415

Arg Met Met Val Gln Leu Thr Leu Ala Ser Glu Arg Gly Ser Pro Gln
420 425 430

Arg Lys Gly Gln Arg Gly Ser Tyr Val Ser Met Arg Ile Asn Thr His
435 440 445

Ala Ile Asp Lys Tyr Ser Arg Ile Ile Phe Pro Ala Ala Tyr Ile Leu
450 455 460

Phe Asn Leu Ile Tyr Trp Ser Ile Phe Ser
465 470

<210> 107

<211> 86

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Neur_Chan_LBD
domain sequence

<400> 107

Asp Lys Arg Val Arg Pro Val Asn Gly Gly Asp Val Pro Pro Val Thr
1 5 10 15

Val Ser Val Gly Leu Thr Leu Gln Gln Ile Ile Ser Val Asp Glu Lys
20 25 30

Asn Gln Asp Leu Thr Thr Asn Val Trp Leu Arg Gln Gly Gln Trp Thr
35 40 45

Asp Pro Arg Leu Ala Trp Asn Pro Ser Asp Pro Leu Asp Asp Glu Gly

<210> 110
 <211> 1015
 <212> PRT
 <213> Homo sapiens

<400> 110

Met	Arg	Arg	Phe	Leu	Arg	Pro	Gly	His	Asp	Pro	Val	Arg	Glu	Arg	Leu
1				5					10					15	
Lys	Arg	Asp	Leu	Phe	Gln	Phe	Asn	Lys	Thr	Val	Glu	His	Gly	Phe	Pro
			20					25					30		
His	Gln	Pro	Ser	Ala	Leu	Gly	Tyr	Ser	Pro	Ser	Leu	His	Ile	Leu	Ala
		35					40					45			
Ile	Gly	Thr	Arg	Ser	Gly	Ala	Ile	Lys	Leu	Tyr	Gly	Ala	Pro	Gly	Val
	50					55					60				
Glu	Phe	Met	Gly	Leu	His	Gln	Glu	Asn	Asn	Ala	Val	Thr	Gln	Ile	His
65					70					75					80
Leu	Leu	Pro	Gly	Gln	Cys	Gln	Leu	Val	Thr	Leu	Leu	Asp	Asp	Asn	Ser
				85					90					95	
Leu	His	Leu	Trp	Ser	Leu	Lys	Val	Lys	Gly	Gly	Ala	Ser	Glu	Leu	Gln
		100						105					110		
Glu	Asp	Glu	Ser	Phe	Thr	Leu	Arg	Gly	Pro	Pro	Gly	Ala	Ala	Pro	Ser
	115						120				125				
Ala	Thr	Gln	Ile	Thr	Val	Val	Leu	Pro	His	Ser	Ser	Cys	Glu	Leu	Leu
	130					135					140				
Tyr	Leu	Gly	Thr	Glu	Ser	Gly	Asn	Val	Phe	Val	Val	Gln	Leu	Pro	Ala
145					150				155					160	
Phe	Arg	Ala	Leu	Glu	Asp	Arg	Thr	Ile	Ser	Ser	Asp	Ala	Val	Leu	Gln
			165					170						175	
Arg	Leu	Pro	Glu	Glu	Ala	Arg	His	Arg	Arg	Val	Phe	Glu	Met	Val	Glu
		180						185					190		
Ala	Leu	Gln	Glu	His	Pro	Arg	Asp	Pro	Asn	Gln	Ile	Leu	Ile	Gly	Tyr
		195					200					205			
Ser	Arg	Gly	Leu	Val	Val	Ile	Trp	Asp	Leu	Gln	Gly	Ser	Arg	Val	Leu
210						215					220				

Tyr	His	Phe	Leu	Ser	Ser	Gln	Gln	Leu	Glu	Asn	Ile	Trp	Trp	Gln	Arg	225	230	235	240
Asp	Gly	Arg	Leu	Leu	Val	Ser	Cys	His	Ser	Asp	Gly	Ser	Tyr	Cys	Gln	245	250	255	
Trp	Pro	Val	Ser	Ser	Glu	Ala	Gln	Gln	Pro	Glu	Pro	Leu	Arg	Ser	Leu	260	265	270	
Val	Pro	Tyr	Gly	Pro	Phe	Pro	Cys	Lys	Ala	Ile	Thr	Arg	Ile	Leu	Trp	275	280	285	
Leu	Thr	Thr	Arg	Gln	Gly	Leu	Pro	Phe	Thr	Ile	Phe	Gln	Gly	Gly	Met	290	295	300	
Pro	Arg	Ala	Ser	Tyr	Gly	Asp	Arg	His	Cys	Ile	Ser	Val	Ile	His	Asp	305	310	315	320
Gly	Gln	Gln	Thr	Ala	Phe	Asp	Phe	Thr	Ser	Arg	Val	Ile	Gly	Phe	Thr	325	330	335	
Val	Leu	Thr	Glu	Ala	Asp	Pro	Ala	Ala	Thr	Phe	Asp	Asp	Pro	Tyr	Ala	340	345	350	
Leu	Val	Val	Leu	Ala	Glu	Glu	Glu	Leu	Val	Val	Ile	Asp	Leu	Gln	Thr	355	360	365	
Ala	Gly	Trp	Pro	Pro	Val	Gln	Leu	Pro	Tyr	Leu	Ala	Ser	Leu	His	Cys	370	375	380	
Ser	Ala	Ile	Thr	Cys	Ser	His	His	Val	Ser	Asn	Ile	Pro	Leu	Lys	Leu	385	390	395	400
Trp	Glu	Arg	Ile	Ile	Ala	Ala	Gly	Ser	Arg	Gln	Asn	Ala	His	Phe	Ser	405	410	415	
Thr	Met	Glu	Trp	Pro	Ile	Asp	Gly	Gly	Thr	Ser	Leu	Thr	Pro	Ala	Pro	420	425	430	
Pro	Gln	Arg	Asp	Leu	Leu	Leu	Thr	Gly	His	Glu	Asp	Gly	Thr	Val	Arg	435	440	445	
Phe	Trp	Asp	Ala	Ser	Gly	Val	Cys	Leu	Arg	Leu	Leu	Tyr	Lys	Leu	Ser	450	455	460	
Thr	Val	Arg	Val	Phe	Leu	Thr	Asp	Thr	Asp	Pro	Asn	Glu	Asn	Phe	Ser	465	470	475	480

Ala	Gln	Gly	Glu	Asp	Glu	Trp	Pro	Pro	Leu	Arg	Lys	Val	Gly	Ser	Phe	485	490	495
Asp	Pro	Tyr	Ser	Asp	Asp	Pro	Arg	Leu	Gly	Ile	Gln	Lys	Ile	Phe	Leu	500	505	510
Cys	Lys	Tyr	Ser	Gly	Tyr	Leu	Ala	Val	Ala	Gly	Thr	Ala	Gly	Gln	Val	515	520	525
Leu	Val	Leu	Glu	Leu	Asn	Asp	Glu	Ala	Ala	Glu	Gln	Ala	Val	Glu	Gln	530	535	540
Val	Glu	Ala	Asp	Leu	Leu	Gln	Asp	Gln	Glu	Gly	Tyr	Arg	Trp	Lys	Gly	545	550	555
His	Glu	Arg	Leu	Ala	Ala	Arg	Ser	Gly	Pro	Val	Arg	Phe	Glu	Pro	Gly	565	570	575
Phe	Gln	Pro	Phe	Val	Leu	Val	Gln	Cys	Gln	Pro	Pro	Ala	Val	Val	Thr	580	585	590
Ser	Leu	Ala	Leu	His	Ser	Glu	Trp	Arg	Leu	Val	Ala	Phe	Gly	Thr	Ser	595	600	605
His	Gly	Phe	Gly	Leu	Phe	Asp	His	Gln	Gln	Arg	Arg	Gln	Val	Phe	Val	610	615	620
Lys	Cys	Thr	Leu	His	Pro	Ser	Asp	Gln	Leu	Ala	Leu	Glu	Gly	Pro	Leu	625	630	635
Ser	Arg	Val	Lys	Ser	Leu	Lys	Lys	Ser	Leu	Arg	Gln	Ser	Phe	Arg	Arg	645	650	655
Met	Arg	Arg	Ser	Arg	Val	Ser	Ser	Arg	Lys	Arg	His	Pro	Ala	Gly	Pro	660	665	670
Pro	Gly	Glu	Ala	Gln	Glu	Gly	Ser	Ala	Lys	Ala	Glu	Arg	Pro	Gly	Leu	675	680	685
Gln	Asn	Met	Glu	Leu	Ala	Pro	Val	Gln	Arg	Lys	Ile	Glu	Ala	Arg	Ser	690	695	700
Ala	Glu	Asp	Ser	Phe	Thr	Gly	Phe	Val	Arg	Thr	Leu	Tyr	Phe	Ala	Asp	705	710	715
Thr	Tyr	Leu	Lys	Asp	Ser	Ser	Arg	His	Cys	Pro	Ser	Leu	Trp	Ala	Gly	725	730	735

Thr	Asn	Gly	Gly	Thr	Ile	Tyr	Ala	Phe	Ser	Leu	Arg	Val	Pro	Pro	Ala			
			740					745					750					
Glu	Arg	Arg	Met	Asp	Glu	Pro	Val	Arg	Ala	Glu	Gln	Ala	Lys	Glu	Ile			
			755				760					765						
Gln	Leu	Met	His	Arg	Ala	Pro	Val	Val	Gly	Ile	Leu	Val	Leu	Asp	Gly			
			770			775					780							
His	Ser	Val	Pro	Leu	Pro	Glu	Pro	Leu	Glu	Val	Ala	His	Asp	Leu	Ser			
			785			790				795					800			
Lys	Ser	Pro	Asp	Met	Gln	Gly	Ser	His	Gln	Leu	Leu	Val	Val	Ser	Glu			
				805					810						815			
Glu	Gln	Phe	Lys	Val	Phe	Thr	Leu	Pro	Lys	Val	Ser	Ala	Lys	Leu	Lys			
			820					825					830					
Leu	Lys	Leu	Thr	Ala	Leu	Glu	Gly	Ser	Arg	Val	Arg	Arg	Val	Ser	Val			
			835				840					845						
Ala	His	Phe	Gly	Ser	Arg	Arg	Ala	Glu	Asp	Tyr	Gly	Glu	His	His	Leu			
			850			855					860							
Ala	Val	Leu	Thr	Asn	Leu	Gly	Asp	Ile	Gln	Val	Val	Ser	Leu	Pro	Leu			
			865			870				875					880			
Leu	Lys	Pro	Gln	Val	Arg	Tyr	Ser	Cys	Ile	Arg	Arg	Glu	Asp	Val	Ser			
				885					890					895				
Gly	Ile	Ala	Ser	Cys	Val	Phe	Thr	Lys	Tyr	Gly	Gln	Gly	Phe	Tyr	Leu			
			900					905					910					
Ile	Ser	Pro	Ser	Glu	Phe	Glu	Arg	Phe	Ser	Leu	Ser	Thr	Lys	Trp	Leu			
			915				920						925					
Val	Glu	Pro	Arg	Cys	Leu	Val	Asp	Ser	Ala	Glu	Thr	Lys	Asn	His	Arg			
			930			935						940						
Pro	Gly	Asn	Gly	Ala	Gly	Pro	Lys	Lys	Ala	Pro	Ser	Arg	Ala	Arg	Asn			
			945			950				955					960			
Ser	Gly	Thr	Gln	Ser	Asp	Gly	Glu	Glu	Lys	Gln	Pro	Gly	Leu	Val	Met			
				965					970					975				
Glu	Arg	Ala	Leu	Leu	Ser	Asp	Glu	Arg	Ala	Ala	Thr	Gly	Val	His	Ile			
			980					985					990					

Glu Pro Pro Trp Gly Ala Ala Ser Ala Met Ala Glu Gln Ser Glu Trp
 995 1000 1005

Leu Ser Val Gln Ala Ala Arg
 1010 1015

<210> 111
 <211> 1027
 <212> PRT
 <213> Mus musculus

<400> 111
 Met Arg Arg Phe Leu Arg Thr Gly His Asp Pro Ala Arg Glu Arg Leu
 1 5 10 15

Lys Arg Asp Leu Phe Gln Phe Asn Lys Thr Val Glu His Gly Phe Pro
 20 25 30

His Gln Pro Ser Ala Leu Gly Tyr Ser Pro Ser Leu Arg Ile Leu Ala
 35 40 45

Ile Gly Thr Arg Ser Gly Ala Val Lys Leu Tyr Gly Ala Pro Gly Val
 50 55 60

Glu Phe Met Gly Leu His Lys Glu Asn Asn Ala Val Leu Gln Ile His
 65 70 75 80

Phe Leu Pro Gly Gln Cys Gln Leu Val Thr Leu Leu Asp Asp Asn Ser
 85 90 95

Leu His Leu Trp Ser Leu Lys Val Lys Gly Gly Val Ser Glu Leu Gln
 100 105 110

Glu Glu Glu Ser Phe Thr Leu Arg Gly Pro Pro Gly Ala Ala Pro Ser
 115 120 125

Ala Thr Gln Val Thr Glu Ile Leu Pro His Ser Ser Gly Glu Leu Leu
 130 135 140

Tyr Leu Gly Thr Glu Ser Gly Asn Val Leu Val Val Gln Leu Pro Gly
 145 150 155 160

Phe Arg Thr Leu His Asp Arg Thr Ile Cys Ser Asp Glu Val Leu Gln
 165 170 175

Trp Leu Pro Glu Glu Ala Arg His Arg Arg Val Phe Glu Met Val Glu

180	185	190
Ala Leu Gln Glu His Pro Arg Asp Pro Asn Gln Ile Leu Ile Gly Tyr		
195	200	205
Ser Arg Gly Leu Val Val Ile Trp Asp Leu Gln Gly Ser Arg Ala Leu		
210	215	220
Ser His Phe Leu Ser Ser Gln Gln Leu Glu Asn Ala Ser Trp Gln Arg		
225	230	235 240
Asp Gly Cys Leu Ile Val Thr Cys His Ser Asp Gly Ser His Cys Gln		
245	250	255
Trp Pro Val Ser Ser Asp Thr Gln Asn Pro Glu Pro Leu Arg Ser Ser		
260	265	270
Ile Pro Tyr Gly Pro Phe Pro Cys Lys Ala Ile Thr Lys Ile Phe Trp		
275	280	285
Leu Thr Thr Arg Gln Gly Leu Pro Phe Thr Ile Phe Gln Gly Gly Met		
290	295	300
Pro Arg Ala Ser Tyr Gly Asp Arg Asn Cys Ile Ser Val Val His Asn		
305	310	315 320
Gly Gln Gln Thr Gly Phe Asp Phe Thr Ser Arg Val Ile Asp Phe Thr		
325	330	335
Val Leu Ser Glu Ala Asp Pro Ala Ala Ala Phe Asp Asp Pro Tyr Ala		
340	345	350
Leu Val Val Leu Ala Glu Glu Glu Leu Val Val Ile Asp Leu Gln Thr		
355	360	365
Pro Gly Trp Pro Pro Val Gln Leu Pro Tyr Leu Ala Ser Leu His Cys		
370	375	380
Ser Ala Ile Thr Cys Ser His His Val Ser Asn Ile Pro Leu Lys Leu		
385	390	395 400
Trp Glu Arg Ile Ile Ala Ala Gly Ser Arg Gln Asn Ser His Phe Ser		
405	410	415
Thr Met Glu Trp Pro Ile Asp Gly Gly Thr Ser Leu Ala Pro Pro Pro		
420	425	430
Pro Gln Arg Asp Leu Leu Leu Thr Gly His Glu Asp Gly Thr Val Arg		

435		440		445
Phe Trp Asp Ala Ser Gly Val Cys Leu Arg Leu Leu Tyr Lys Leu Ser				
450		455		460
Thr Val Arg Val Phe Leu Thr Asp Thr Asp Pro Ser Glu Asn Leu Ser				
465		470		475 480
Ala Gln Gly Glu Asp Glu Trp Pro Pro Leu Arg Lys Val Gly Ser Phe				
	485		490	495
Asp Pro Tyr Ser Asp Asp Pro Arg Leu Gly Ile Gln Lys Ile Phe Leu				
	500		505	510
Cys Lys Tyr Ser Gly Tyr Leu Ala Val Ala Gly Thr Ala Gly Gln Val				
	515		520	525
Leu Val Leu Glu Leu Asn Asp Glu Ala Ala Glu His Ala Val Glu Gln				
	530		535	540
Val Glu Ala Asp Leu Leu Gln Asp Gln Glu Gly Tyr Arg Trp Lys Gly				
545		550		555 560
His Glu Arg Leu Ala Ala Arg Pro Gly Pro Val Cys Phe Glu Ala Gly				
	565		570	575
Phe Gln Pro Phe Val Leu Val Gln Cys Gln Pro Pro Ala Val Val Thr				
	580		585	590
Ser Leu Ala Leu His Ser Glu Trp Arg Leu Val Ala Phe Gly Thr Ser				
	595		600	605
His Gly Phe Gly Leu Phe Asp His Gln Gln Arg Arg Gln Val Phe Val				
	610		615	620
Lys Cys Thr Leu His Pro Ser Asp Gln Leu Ala Leu Glu Gly Pro Leu				
625		630		635 640
Ser Arg Val Lys Ser Leu Lys Lys Ser Leu Arg Gln Ser Phe Arg Arg				
	645		650	655
Met Arg Arg Ser Arg Val Ser Ser His Lys Arg Arg Pro Gly Gly Pro				
	660		665	670
Thr Gly Glu Ala Gln Ala Gln Ala Val Asn Thr Lys Thr Glu Arg Thr				
	675		680	685
Gly Leu Gln Asn Met Glu Leu Ala Pro Val Gln Arg Lys Ile Glu Ala				

690	695	700
Arg Ser Ala Glu Asp Ser Phe Thr Gly Phe Val Xaa Thr Leu Tyr Xaa		
705	710	715 720
Ala Asp Thr Tyr Leu Arg Asp Ser Ser Arg His Cys Pro Ser Leu Trp		
	725	730 735
Ala Gly Thr Asn Gly Ser Thr Val Tyr Ala Phe Ser Leu Arg Val Pro		
	740	745 750
Pro Ala Glu Lys Lys Ile Asn Lys Pro Val Arg Ala Lys Gln Ala Lys		
	755	760 765
Glu Ile Gln Leu Met His Arg Ala Pro Val Val Gly Ile Leu Val Leu		
	770	775 780
Asp Gly His Asn Val Pro Leu Pro Glu Pro Leu Glu Val Ala His Asp		
	785	790 795 800
Leu Ser Lys Ser Pro Asp Met Gln Gly Ser His Gln Leu Leu Val Val		
	805	810 815
Ser Glu Glu Gln Phe Lys Val Phe Thr Leu Pro Lys Val Ser Ala Lys		
	820	825 830
Leu Lys Leu Lys Leu Thr Ala Leu Glu Gly Ser Arg Val Arg Arg Val		
	835	840 845
Gly Val Ala His Phe Gly Ser Cys Arg Ala Glu Asp Tyr Gly Glu His		
	850	855 860
His Leu Ala Val Leu Thr Asn Leu Gly Asp Ile Gln Val Val Ser Met		
	865	870 875 880
Pro Leu Leu Lys Pro Gln Val Arg Tyr Ser Cys Ile Arg Arg Glu Asp		
	885	890 895
Val Ser Gly Ile Ala Ser Cys Val Phe Thr Lys Tyr Gly Gln Gly Phe		
	900	905 910
Tyr Leu Ile Ser Pro Ser Glu Phe Glu Arg Phe Ser Leu Ser Thr Lys		
	915	920 925
Trp Leu Val Glu Pro Arg Cys Leu Val Asp Ser Thr Lys Ala Lys Lys		
	930	935 940
His Asn Arg Pro Ser Asn Gly Asn Gly Thr Gly Pro Lys Met Thr Ser		

945		950		955		960
Ser Gly His Val Arg Asn Ser Lys Ser Gln Ser Asp Gly Asp Glu Lys						
	965			970		975
Lys Pro Gly Pro Val Met Glu His Ala Leu Leu Asn Asp Ala Trp Val						
	980		985			990
Leu Lys Glu Ile Gln Ser Thr Leu Glu Gly Asp Arg Arg Ser Tyr Gly						
	995		1000		1005	
Asn Trp His Pro His Arg Val Ala Val Gly Cys Arg Leu Ser Asn Gly						
	1010		1015		1020	
Glu Ala Glu						
1025						

<210> 112
 <211> 1034
 <212> PRT
 <213> Mus musculus

<400> 112
Met Met Lys Phe Arg Phe Arg Arg Gln Gly Ala Asp Pro Gln Arg Glu
1 5 10 15
Lys Leu Lys Gln Glu Leu Phe Ala Phe His Lys Thr Val Glu His Gly
20 25 30
Phe Pro Asn Gln Pro Ser Ala Leu Ala Phe Asp Pro Glu Leu Arg Ile
35 40 45
Met Ala Ile Gly Thr Arg Ser Gly Ala Val Lys Ile Tyr Gly Ala Pro
50 55 60
Gly Val Glu Phe Thr Gly Leu His Arg Asp Ala Ala Thr Val Thr Gln
65 70 75 80
Met His Phe Leu Pro Gly Gln Gly Arg Leu Leu Thr Leu Leu Asp Asp
85 90 95
Ser Ser Leu His Leu Trp Glu Ile Ile His His Asn Gly Cys Ala His
100 105 110
Leu Glu Glu Gly Leu Ser Phe His Pro Pro Ser Arg Pro Ser Phe Asp
115 120 125

Asn	Ala	Ser	Phe	Pro	Ala	Ser	Leu	Thr	Arg	Val	Thr	Val	Val	Leu	Leu	
130						135					140					
Val	Ala	Gly	Asn	Thr	Ala	Ala	Leu	Gly	Thr	Glu	Ser	Gly	Ser	Ile	Phe	
145					150					155					160	
Phe	Leu	Asp	Val	Ala	Thr	Leu	Ala	Leu	Leu	Glu	Gly	Gln	Thr	Leu	Ser	
				165					170					175		
Pro	Asp	Val	Val	Leu	Arg	Ser	Val	Pro	Asp	Asp	Tyr	Arg	Cys	Gly	Lys	
			180					185					190			
Ala	Leu	Gly	Pro	Val	Glu	Ser	Leu	Gln	Gly	His	Leu	Gln	Asp	Pro	Ser	
		195					200					205				
Lys	Ile	Leu	Ile	Gly	Tyr	Ser	Arg	Gly	Leu	Leu	Val	Ile	Trp	Ser	Gln	
210						215					220					
Ala	Thr	Gln	Ser	Val	Asp	Asn	Val	Phe	Leu	Gly	Asn	Gln	Gln	Leu	Glu	
225					230					235					240	
Ser	Leu	Cys	Trp	Gly	Arg	Asp	Gly	Ser	Ser	Ile	Ile	Ser	Ser	His	Ser	
			245						250					255		
Asp	Gly	Ser	Tyr	Ala	Ile	Trp	Ser	Thr	Asp	Thr	Gly	Ser	Pro	Pro	Thr	
			260					265					270			
Leu	Gln	Pro	Thr	Val	Val	Thr	Thr	Pro	Tyr	Gly	Pro	Phe	Pro	Cys	Lys	
		275					280					285				
Ala	Ile	Asn	Lys	Ile	Leu	Trp	Arg	Ser	Cys	Glu	Ser	Gly	Asp	His	Phe	
		290				295						300				
Ile	Ile	Phe	Ser	Gly	Gly	Met	Pro	Arg	Ala	Ser	Tyr	Gly	Asp	Arg	His	
305					310					315					320	
Cys	Val	Ser	Val	Leu	Arg	Ala	Glu	Thr	Leu	Val	Thr	Leu	Asp	Phe	Thr	
				325					330					335		
Ser	Arg	Val	Ile	Asp	Phe	Phe	Thr	Val	His	Ser	Thr	Gln	Pro	Glu	Asp	
			340					345					350			
Glu	Cys	Asp	Asn	Pro	Gln	Ala	Leu	Ala	Val	Leu	Leu	Glu	Glu	Glu	Leu	
		355					360					365				
Val	Val	Leu	Asp	Leu	Gln	Thr	Pro	Gly	Trp	Pro	Ala	Val	Pro	Ala	Pro	
		370				375					380					

Tyr	Leu	Ala	Pro	Leu	His	Ser	Ser	Ala	Ile	Thr	Cys	Ser	Ala	His	Val
385					390					395					400
Ala	Asn	Val	Pro	Ser	Lys	Leu	Trp	Ala	Arg	Ile	Val	Ser	Ala	Gly	Glu
				405					410					415	
Gln	Gln	Ser	Pro	Gln	Pro	Ala	Ser	Ser	Ala	Leu	Ser	Trp	Pro	Ile	Thr
			420					425					430		
Gly	Gly	Arg	Asn	Leu	Ala	Gln	Glu	Pro	Ser	Gln	Arg	Gly	Leu	Leu	Leu
		435					440					445			
Thr	Gly	His	Glu	Asp	Gly	Thr	Val	Arg	Phe	Trp	Asp	Ala	Ser	Gly	Val
	450					455					460				
Ala	Leu	Arg	Pro	Leu	Tyr	Lys	Leu	Ser	Thr	Ala	Gly	Leu	Phe	Gln	Thr
465					470					475					480
Asp	Cys	Glu	His	Ala	Asp	Ser	Leu	Ala	Gln	Ala	Val	Glu	Asp	Asp	Trp
				485					490					495	
Pro	Pro	Phe	Arg	Lys	Val	Gly	Cys	Phe	Asp	Pro	Tyr	Ser	Asp	Asp	Pro
			500					505						510	
Arg	Leu	Gly	Ile	Gln	Lys	Val	Ala	Leu	Cys	Lys	Tyr	Thr	Ala	Gln	Met
	515						520					525			
Val	Val	Ala	Gly	Thr	Ala	Gly	Gln	Val	Leu	Val	Leu	Glu	Leu	Ser	Glu
	530					535					540				
Val	Pro	Ala	Glu	His	Ala	Val	Ser	Val	Ala	Asn	Val	Asp	Leu	Leu	Gln
545					550					555					560
Asp	Arg	Glu	Gly	Phe	Thr	Trp	Lys	Gly	His	Glu	Arg	Leu	Asn	Pro	His
				565					570					575	
Thr	Gly	Leu	Leu	Pro	Trp	Pro	Ala	Gly	Phe	Gln	Pro	Arg	Met	Leu	Ile
		580						585					590		
Gln	Cys	Leu	Pro	Pro	Ala	Ala	Val	Thr	Ala	Val	Thr	Leu	His	Ala	Glu
	595						600					605			
Trp	Ser	Leu	Val	Ala	Phe	Gly	Thr	Ser	His	Gly	Phe	Gly	Leu	Phe	Asp
	610					615					620				
Tyr	Gln	Arg	Lys	Ser	Pro	Val	Leu	Ala	Arg	Cys	Thr	Leu	His	Pro	Asn
625					630					635					640

Asp	Ser	Leu	Ala	Met	Glu	Gly	Pro	Leu	Ser	Arg	Val	Lys	Ser	Leu	Lys	645	650	655	
Lys	Ser	Leu	Arg	Gln	Ser	Phe	Arg	Arg	Ile	Arg	Lys	Ser	Arg	Val	Ser	660	665	670	
Gly	Lys	Lys	Arg	Thr	Pro	Ala	Ala	Ser	Ser	Lys	Glu	Ala	Asn	Ala	Gln	675	680	685	
Leu	Ala	Glu	Gln	Thr	Cys	Pro	His	Asp	Leu	Glu	Met	Thr	Pro	Val	Gln	690	695	700	
Arg	Arg	Ile	Glu	Pro	Arg	Ser	Ala	Asp	Asp	Ser	Leu	Ser	Gly	Val	Val	705	710	715	720
Arg	Cys	Leu	Tyr	Phe	Ala	Asp	Thr	Phe	Leu	Arg	Asp	Ala	Thr	His	His	725	730	735	
Gly	Pro	Thr	Met	Trp	Ala	Gly	Thr	Asn	Ser	Gly	Ser	Val	Phe	Ala	Tyr	740	745	750	
Ala	Leu	Glu	Val	Pro	Ala	Ala	Thr	Ala	Gly	Gly	Glu	Lys	Arg	Pro	Glu	755	760	765	
Gln	Ala	Val	Glu	Ala	Val	Leu	Gly	Lys	Glu	Val	Gln	Leu	Met	His	Arg	770	775	780	
Ala	Pro	Val	Val	Ala	Ile	Ala	Val	Leu	Asp	Gly	Arg	Gly	Arg	Pro	Leu	785	790	795	800
Pro	Glu	Pro	Tyr	Glu	Ala	Ser	Arg	Asp	Leu	Ala	Gln	Ala	Pro	Asp	Met	805	810	815	
Gln	Gly	Gly	His	Ala	Val	Leu	Ile	Ala	Ser	Glu	Glu	Gln	Phe	Lys	Val	820	825	830	
Phe	Thr	Leu	Pro	Lys	Val	Ser	Ala	Lys	Thr	Lys	Phe	Lys	Leu	Thr	Ala	835	840	845	
His	Glu	Gly	Cys	Arg	Val	Arg	Lys	Val	Ala	Leu	Ala	Thr	Phe	Ala	Ser	850	855	860	
Val	Met	Ser	Glu	Asp	Tyr	Ala	Glu	Thr	Cys	Leu	Ala	Cys	Leu	Thr	Asn	865	870	875	880
Leu	Gly	Asp	Val	His	Val	Phe	Ser	Val	Pro	Gly	Leu	Arg	Pro	Gln	Val	885	890	895	

His Tyr Ser Cys Ile Arg Lys Glu Asp Ile Ser Gly Ile Ala Ser Cys
900 905 910

Val Phe Thr Arg His Gly Gln Gly Phe Tyr Leu Ile Ser Pro Ser Glu
915 920 925

Phe Glu Arg Phe Ser Leu Ser Ala Arg Asn Ile Thr Glu Pro Leu Cys
930 935 940

Ser Leu Asp Ile Ser Trp Pro Gln Asn Ala Thr Gln Pro Arg Leu Gln
945 950 955 960

Glu Ser Pro Lys Leu Ser Gln Ala Asn Gly Thr Arg Asp Ile Ile Leu
965 970 975

Ala Pro Glu Ser Cys Glu Gly Ser Pro Ser Ser Ala His Ser Lys Arg
980 985 990

Ala Asp Thr Met Glu Pro Pro Glu Ala Ala Leu Ser Pro Val Ser Ile
995 1000 1005

Asp Ser Ala Ala Ser Gly Asp Thr Met Leu Asp Thr Thr Gly Asp Val
1010 1015 1020

Thr Val Glu Tyr Val Lys Asp Phe Leu Gly
1025 1030

<210> 113

<211> 1057

<212> PRT

<213> Homo sapiens

<400> 113

Met Met Lys Phe Pro Phe Arg Arg Gln Gly Ala Asp Pro Gln Arg Glu
1 5 10 15

Lys Leu Lys Gln Glu Leu Phe Ala Phe Asn Lys Thr Val Glu His Gly
20 25 30

Phe Pro Asn Gln Pro Ser Ala Leu Ala Phe Asp Pro Glu Leu Arg Ile
35 40 45

Met Ala Ile Gly Thr Arg Ser Gly Ala Val Lys Ile Tyr Gly Ala Pro
50 55 60

Gly Val Glu Phe Thr Gly Leu His Arg Asp Ala Ala Thr Val Thr Gln
65 70 75 80

Met	His	Phe	Leu	Thr	Gly	Gln	Gly	Arg	Leu	Leu	Ser	Leu	Leu	Asp	Asp	85	90	95
Ser	Ser	Leu	His	Leu	Trp	Glu	Ile	Val	His	His	Asn	Gly	Cys	Ala	His	100	105	110
Leu	Glu	Glu	Ala	Leu	Ser	Phe	Gln	Leu	Pro	Ser	Arg	Pro	Gly	Phe	Asp	115	120	125
Gly	Ala	Ser	Ala	Pro	Leu	Ser	Leu	Thr	Arg	Val	Thr	Val	Val	Leu	Leu	130	135	140
Val	Ala	Ala	Gly	Asp	Ile	Ala	Ala	Leu	Gly	Thr	Glu	Gly	Ser	Ser	Ser	145	150	155
Val	Phe	Phe	Leu	Asp	Val	Thr	Thr	Leu	Thr	Leu	Leu	Glu	Gly	Gln	Thr	165	170	175
Leu	Ala	Pro	Gly	Glu	Val	Leu	Arg	Ser	Val	Pro	Asp	Asp	Tyr	Arg	Cys	180	185	190
Gly	Lys	Asp	Leu	Gly	Pro	Val	Glu	Ser	Leu	Gln	Gly	His	Leu	Gln	Asp	195	200	205
Pro	Thr	Lys	Ile	Leu	Ile	Gly	Tyr	Ser	Arg	Gly	Leu	Leu	Val	Ile	Arg	210	215	220
Asn	Gln	Ala	Ser	Gln	Cys	Val	Asp	His	Ile	Phe	Leu	Gly	Asn	Gln	Gln	225	230	235
Leu	Glu	Ser	Leu	Cys	Trp	Gly	Arg	Asp	Ser	Ser	Thr	Val	Val	Ser	Ser	245	250	255
His	Ser	Asp	Gly	Ser	Tyr	Ala	Val	Trp	Ser	Val	Asp	Ala	Gly	Ser	Phe	260	265	270
Pro	Thr	Leu	Gln	Pro	Thr	Val	Ala	Thr	Thr	Pro	Tyr	Gly	Pro	Phe	Pro	275	280	285
Cys	Lys	Ala	Ile	Asn	Lys	Ile	Leu	Trp	Arg	Asn	Cys	Glu	Ser	Gly	Gly	290	295	300
His	Phe	Ile	Ile	Phe	Ser	Gly	Gly	Met	Pro	Arg	Ala	Ser	Tyr	Gly	Asp	305	310	315
Arg	His	Cys	Val	Ser	Val	Leu	Arg	Ala	Glu	Thr	Leu	Val	Thr	Leu	Asp	325	330	335

Phe	His	Phe	Arg	Ile	Ile	Asp	Phe	Phe	Thr	Val	His	Ser	Thr	Arg	Pro			
			340					345					350					
Glu	Asp	Glu	Phe	Asp	Asp	Pro	Gln	Ala	Leu	Ala	Val	Leu	Leu	Glu	Glu			
		355					360					365						
Glu	Leu	Val	Val	Leu	Asp	Leu	Gln	Thr	Pro	Gly	Trp	Pro	Ala	Val	Pro			
	370					375					380							
Ala	Pro	Tyr	Leu	Ala	Pro	Leu	His	Ser	Ser	Ala	Ile	Thr	Cys	Ser	Ala			
385					390					395					400			
His	Val	Ala	Ser	Val	Pro	Ala	Lys	Leu	Trp	Ala	Arg	Ile	Val	Ser	Ala			
			405						410					415				
Gly	Glu	Gln	Gln	Ser	Pro	Gln	Pro	Val	Ser	Ser	Ala	Leu	Ser	Trp	Pro			
			420					425					430					
Ile	Thr	Gly	Gly	Arg	Asn	Leu	Ala	Gln	Glu	Pro	Ser	Gln	Arg	Gly	Leu			
		435					440					445						
Leu	Leu	Thr	Gly	His	Glu	Asp	Gly	Thr	Val	Arg	Phe	Trp	Asp	Ala	Ser			
	450					455					460							
Gly	Val	Ala	Leu	Arg	Pro	Leu	Tyr	Lys	Leu	Ser	Thr	Ala	Gly	Leu	Phe			
465					470					475					480			
Gln	Thr	Asp	Cys	Glu	His	Ser	Asp	Ser	Leu	Ala	Gln	Ala	Ala	Glu	Asp			
			485					490						495				
Asp	Trp	Pro	Pro	Phe	Arg	Lys	Val	Gly	Cys	Phe	Asp	Pro	Tyr	Ser	Asp			
			500					505					510					
Asp	Pro	Arg	Leu	Gly	Val	Gln	Lys	Val	Ala	Leu	Cys	Lys	Tyr	Thr	Ala			
		515					520					525						
Gln	Met	Val	Val	Ala	Gly	Thr	Ala	Gly	Gln	Val	Leu	Val	Leu	Glu	Leu			
	530					535					540							
Ser	Asp	Val	Pro	Val	Glu	His	Ala	Val	Ser	Val	Ala	Ile	Ile	Asp	Leu			
545					550					555					560			
Leu	Gln	Asp	Arg	Glu	Gly	Phe	Thr	Trp	Lys	Gly	His	Glu	Arg	Leu	Ser			
			565					570						575				
Pro	Arg	Thr	Gly	Leu	Leu	Pro	Trp	Pro	Ala	Gly	Phe	Gln	Pro	Cys	Val			
			580					585						590				

Leu Val Gln Cys Leu Pro Pro Ala Ala Val Thr Ala Val Thr Leu His
 595 600 605
 Thr Glu Trp Ser Leu Val Ala Phe Gly Thr Ser His Gly Phe Gly Leu
 610 615 620
 Leu Ser Pro Val Leu Ala Arg Cys Thr Leu His Pro Asn Asp Ser Leu
 625 630 635 640
 Ala Met Glu Gly Pro Leu Ser Arg Val Lys Ser Leu Lys Lys Ser Leu
 645 650 655
 Arg Gln Ser Phe Arg Arg Ile Arg Lys Ser Arg Val Ser Gly Lys Lys
 660 665 670
 Arg Ala Ala Asn Ala Ser Ser Lys Leu Gln Glu Ala Asn Ala Gln Leu
 675 680 685
 Ala Glu Gln Ala Cys Pro His Asp Val Glu Met Thr Pro Val Gln Arg
 690 695 700
 Arg Ile Glu Pro Arg Ser Ala Asp Asp Ser Leu Ser Gly Val Val Arg
 705 710 715 720
 Cys Leu Tyr Phe Ala Asp Thr Phe Leu Arg Asp Gly Ala His His Gly
 725 730 735
 Pro Thr Met Trp Ala Gly Thr Asn Ser Gly Ser Val Phe Ala Tyr Ala
 740 745 750
 Leu Glu Val Pro Ala Ala Ala Val Gly Gly Glu Lys Arg Pro Glu Gln
 755 760 765
 Ala Val Glu Ala Val Leu Gly Lys Glu Leu Gln Leu Met His Arg Ala
 770 775 780
 Pro Val Val Ala Ile Ala Val Leu Asp Gly Gly Arg Pro Leu Pro Glu
 785 790 795 800
 Pro Tyr Glu Ala Ser Arg Asp Leu Ala Gln Ala Pro His Met Gln Gly
 805 810 815
 Gly His Ala Val Leu Ile Ala Ser Glu Glu Gln Phe Lys Val Phe Thr
 820 825 830
 Leu Pro Lys Val Ser Ala Lys Thr Lys Phe Lys Leu Thr Ala His Glu
 835 840 845

Gly Cys Arg Val Arg Lys Val Val Ala Leu Ala Thr Phe Ala Ser Val
850 855 860

Ala Cys Glu Asp Tyr Ala Glu Thr Cys Leu Ala Cys Leu Thr Asn Leu
865 870 875 880

Gly Asp Val His Val Phe Ser Val Pro Gly Leu Arg Pro Glu Val His
885 890 895

Tyr Ser Cys Ile Arg Lys Glu Asp Ile Ser Gly Ile Ala Ser Cys Val
900 905 910

Phe Thr Arg His Gly Gln Gly Phe Tyr Leu Ile Ser Pro Ser Glu Phe
915 920 925

Glu Arg Phe Ser Leu Ser Ala Arg Asn Ile Thr Glu Gly Leu Cys Ser
930 935 940

Leu Asp Ile Asn Trp Pro Arg Asp Ala Thr Gln Ala Ser Tyr Arg Ile
945 950 955 960

Arg Glu Ser Pro Lys Leu Ser Gln Ala Asn Gly Thr Pro Ser Ile Leu
965 970 975

Leu Ala Pro Gln Ser Leu Asp Gly Ser Pro Asp Pro Ala His Ser Met
980 985 990

Gly Pro Asp Thr Pro Glu Pro Pro Glu Ala Ala Leu Ser Pro Met Ser
995 1000 1005

Ile Asp Ser Ala Thr Ser Ala Asp Thr Thr Leu Asp Thr Thr Gly Asp
1010 1015 1020

Val Thr Val Glu Asp Val Lys Asp Phe Leu Gly Ser Ser Glu Glu Ser
1025 1030 1035 1040

Glu Lys Asn Leu Arg Asn Leu Ala Glu Asp Glu Ala His Ala Cys Cys
1045 1050 1055

Ile

<210> 114

<211> 1032

<212> PRT

<213> Homo sapiens

<400> 114

Met Met Lys Phe Arg Phe Arg Arg Gln Gly Ala Asp Pro Gln Arg Glu
1 5 10 15

Lys Leu Lys Gln Glu Leu Phe Ala Phe Asn Lys Thr Val Glu His Gly
20 25 30

Phe Pro Asn Gln Pro Ser Ala Leu Ala Phe Asp Pro Glu Leu Arg Ile
35 40 45

Met Ala Ile Gly Thr Arg Ser Gly Ala Val Lys Ile Tyr Gly Ala Pro
50 55 60

Gly Val Glu Phe Thr Gly Leu His Arg Asp Ala Ala Thr Val Thr Gln
65 70 75 80

Met His Phe Leu Thr Gly Gln Gly Arg Leu Leu Ser Leu Leu Asp Asp
85 90 95

Ser Ser Leu His Leu Trp Glu Ile Val His His Asn Gly Cys Ala His
100 105 110

Leu Glu Glu Ala Leu Ser Phe Gln Leu Pro Ser Arg Pro Gly Phe Asp
115 120 125

Gly Ala Ser Ala Pro Leu Ser Leu Thr Arg Val Thr Val Val Leu Leu
130 135 140

Val Ala Ala Gly Asp Ile Ala Gly Leu Gly Thr Glu Gly Ser Ser Val
145 150 155 160

Phe Phe Leu Asp Val Thr Thr Leu Thr Leu Leu Glu Gly Gln Thr Leu
165 170 175

Ala Pro Gly Glu Val Leu Arg Ser Val Pro Asp Asp Tyr Arg Cys Gly
180 185 190

Lys Ala Leu Gly Pro Val Glu Ser Leu Gln Gly His Cys Gly Thr Pro
195 200 205

Gln Arg Phe Ser Leu Ala Thr Asp Arg Gly Leu Leu Val Ile Trp Asn
210 215 220

Gln Ser Arg Gln Cys Val Asp His Ile Phe Leu Gly Asn Gln Gln Leu
225 230 235 240

Glu Ser Leu Cys Trp Gly Arg Asp Ser Ser Thr Val Val Ser Ser His

	245		250		255
Ser Asp Gly Ser Tyr Ala Val Trp Ser Val Asp Ala Gly Ser Phe Pro	260		265		270
Thr Leu Gln Pro Thr Val Ala Thr Thr Pro Tyr Gly Pro Phe Pro Cys	275		280		285
Lys Ala Ile Asn Lys Ile Leu Trp Arg Asn Cys Glu Ser Gly Gly His	290		295		300
Phe Ile Ile Phe Ser Gly Gly Met Pro Arg Ala Ser Tyr Gly Asp Arg	305		310		315
His Cys Val Ser Val Leu Arg Ala Glu Thr Leu Val Thr Leu Asp Phe		325		330	335
Thr Ser Arg Ile Ile Asp Phe Phe Thr Val His Ser Thr Arg Pro Glu		340		345	350
Asp Glu Phe Asp Asp Pro Gln Ala Leu Ala Val Leu Leu Glu Glu Glu		355		360	365
Leu Val Val Leu Asp Leu Gln Thr Pro Gly Trp Pro Ala Val Pro Ala		370		375	380
Pro Tyr Leu Ala Pro Leu His Ser Ser Ala Ile Thr Cys Ser Ala Tyr		385		390	395
Val Ala Ser Val Pro Ala Lys Leu Trp Ala Arg Ile Val Ser Ala Gly		405		410	415
Glu Gln Gln Ser Pro Gln Pro Val Ser Ser Ala Leu Ser Trp Pro Ile		420		425	430
Thr Gly Gly Arg Asn Leu Ala Gln Glu Pro Ser Gln Arg Gly Leu Leu		435		440	445
Leu Thr Gly His Glu Asp Gly Thr Val Arg Phe Trp Asp Ala Ser Gly		450		455	460
Val Ala Leu Arg Pro Leu Tyr Lys Leu Ser Thr Ala Gly Leu Phe Gln		465		470	475
Thr Asp Cys Glu His Ala Asp Ser Leu Ala Gln Ala Ala Glu Asp Asp		485		490	495
Trp Pro Pro Phe Arg Lys Val Gly Cys Phe Asp Pro Tyr Ser Asp Asp					

500	505	510
Pro Arg Leu Gly Val Gln Lys	Val Ala Leu Cys Lys	Tyr Thr Ala Gln
515	520	525
Met Val Val Ala Gly Thr Ala Gly Gln Val Leu Val Leu Glu Leu Ser		
530	535	540
Asp Val Pro Val Glu Gln Ala Val Ser Val Ala Ile Ile Asp Leu Leu		
545	550	555 560
Gln Asp Arg Glu Gly Phe Thr Trp Lys Gly His Glu Arg Leu Ser Pro		
	565 570	575
Arg Thr Gly Pro Leu Pro Trp Pro Ala Gly Phe Leu Pro Arg Val Leu		
	580 585	590
Val Gln Cys Leu Pro Pro Ala Ala Val Thr Ala Val Thr Leu His Thr		
	595 600	605
Glu Trp Ser Leu Val Ala Phe Gly Thr Ser His Gly Phe Gly Leu Phe		
	610 615	620
Asp Tyr Gln Arg Lys Ser Pro Val Leu Ala Arg Cys Thr Leu His Pro		
	625 630 635	640
Asn Asp Ser Leu Ala Met Glu Gly Pro Leu Ser Arg Val Lys Ser Leu		
	645 650	655
Lys Lys Ser Leu Arg Gln Ser Phe Arg Arg Ile Arg Lys Ser Arg Val		
	660 665	670
Ser Gly Lys Lys Arg Ala Ala Asn Ala Ser Ser Lys Leu Leu Glu Ala		
	675 680	685
Asn Ala Gln Leu Ala Glu Gln Ala Cys Pro His Asp Val Glu Met Thr		
	690 695	700
Pro Val Gln Arg Arg Ile Glu Pro Arg Ser Ala Asp Asp Ser Leu Ser		
	705 710 715	720
Gly Val Val Arg Cys Leu Tyr Phe Ala Asp Thr Phe Leu Arg Asp Gly		
	725 730	735
Pro Thr Thr Gly Pro Thr Met Trp Ala Gly Thr Asn Ser Gly Ser Val		
	740 745	750
Phe Ala Tyr Ala Leu Glu Val Pro Ala Ala Ala Val Gly Gly Glu Lys		

755		760		765
Arg Pro Glu Gln Ala Val	Glu Ala Val Leu Gly Lys	Lys Glu Gln Leu		
770	775	780		
Met His Arg Ala Pro Val	Val Ala Ile Cys Arg Val	Gly Arg Arg Gly		
785	790	795	800	
Arg Pro Leu Pro Glu Pro	Tyr Glu Ala Ser Arg Asp	Leu Ala Gln Ala		
	805	810	815	
Pro Asp Met Gln Gly Gly	His Ala Val Leu Ile Ala	Ser Glu Glu Gln		
	820	825	830	
Phe Lys Val Phe Thr Leu	Pro Lys Val Ser Ala Lys	Thr Lys Phe Lys		
	835	840	845	
Leu Thr Ala His Glu Gly	Cys Arg Val Arg Lys Val	Ala Leu Ala Thr		
	850	855	860	
Phe Cys Gln Cys Gly Leu	Gln Thr Met Leu Arg Pro	Ala Trp Pro Val		
865	870	875	880	
Leu Thr Asn Leu Gly Asp	Val His Val Phe Ser Val	Pro Leu Arg Pro		
	885	890	895	
Gln Val His Tyr Ser Cys	Ile Arg Lys Glu Asp Ile	Ser Gly Ile Ala		
	900	905	910	
Ser Cys Val Phe Thr Arg	His Gly Gln Gly Phe Tyr	Leu Ile Ser Pro		
	915	920	925	
Ser Glu Phe Glu Arg Phe	Ser Leu Ser Ala Arg Asn	Ile Thr Glu Arg		
	930	935	940	
Ser Ala Leu Trp Thr Leu	Thr Gly Pro Ala Met Pro	Pro Arg Pro Val		
945	950	955	960	
Thr Gly Ser Glu Ser His	Pro Lys Leu Ser Gln Ala	Asn Gly Thr Pro		
	965	970	975	
Ser Ile Leu Leu Ala Pro	Gln Ser Leu Asp Gly Ser	Pro Asp Pro Ala		
	980	985	990	
His Ser Met Gly Pro Asp	Thr Pro Glu Pro Pro Glu	Ala Ala Leu Ser		
	995	1000	1005	
Pro Met Ser Ile Asp Ser	Ala Thr Ser Ala Asp Thr	Thr Leu Thr Arg		

1010	1015	1020
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Gln Gly Thr Ser Gln Trp Lys Met
1025 1030

<210> 115
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: WD domain
sequence

<400> 115
Leu Leu Arg Thr Leu Gly His Ser Ser Ser Val Thr Ser Leu Ala Phe
1 5 10 15
Asp Pro Asp Gly Gly Leu Leu Ala Thr Gly Ser Ala Asp Gly Thr Val
20 25 30
Arg Ile Trp Asp
35

<210> 116
<211> 37
<212> PRT
<213> Homo sapiens

<400> 116
Asn Lys Thr Val Glu His Gly Phe Pro His Gln Pro Ser Ala Leu Gly
1 5 10 15
Tyr Ser Pro Ser Leu His Ile Leu Ala Ile Gly Thr Arg Ser Gly Ala
20 25 30
Ile Lys Leu Tyr Gly
35

<210> 117
<211> 1130
<212> PRT
<213> Homo sapiens

<400> 117

Gly	Val	Asn	Ala	Gln	Thr	Lys	Asn	Gly	Ala	Thr	Pro	Leu	Tyr	Leu	Ala	1	5	10	15
Cys	Gln	Glu	Gly	His	Leu	Glu	Val	Thr	Gln	Tyr	Leu	Val	Gln	Glu	Cys	20	25	30	
Gly	Ala	Asp	Pro	His	Ala	Arg	Ala	His	Asp	Gly	Met	Thr	Pro	Leu	His	35	40	45	
Ala	Ala	Ala	Gln	Met	Gly	His	Ser	Pro	Val	Ile	Val	Trp	Leu	Val	Ser	50	55	60	
Cys	Thr	Asp	Val	Ser	Leu	Ser	Glu	Gln	Asp	Lys	Asp	Gly	Ala	Thr	Ala	65	70	75	80
Thr	His	Phe	Ala	Ala	Ser	Arg	Gly	His	Ser	Lys	Val	Leu	Ser	Trp	Leu	85	90	95	
Leu	Leu	His	Gly	Gly	Glu	Ile	Ser	Ala	Asp	Leu	Trp	Gly	Gly	Thr	Ala	100	105	110	
Leu	Tyr	Asp	Ala	Ala	Glu	Asn	Gly	Glu	Leu	Glu	Cys	Cys	Gln	Ile	Leu	115	120	125	
Val	Val	Asn	Gly	Ala	Glu	Leu	Glu	Val	Arg	Asp	Arg	Asp	Gly	Tyr	Ala	130	135	140	
Ala	Ala	Asp	Leu	Ser	Asp	Phe	Asn	Gly	His	Ser	His	Cys	Thr	His	Cys	145	150	155	160
Leu	Arg	Thr	Val	Glu	Asn	Leu	Ser	Met	Glu	His	Cys	Val	Leu	Ser	Arg	165	170	175	
Asp	Pro	Ser	Val	Glu	Leu	Glu	Ala	Lys	Gln	Pro	Asp	Ser	Gly	Met	Ser	180	185	190	
Ser	Pro	Asn	Thr	Thr	Val	Ser	Val	Gln	Pro	Leu	Asn	Phe	Asp	Leu	Ser	195	200	205	
Ser	Pro	Thr	Ser	Thr	Leu	Ser	Asn	Tyr	Asp	Ser	Cys	Ser	Ser	Ser	His	210	215	220	
Ser	Ser	Ile	Lys	Gly	Gln	His	Pro	Pro	Arg	Gly	Leu	Ser	Ser	Thr	Arg	225	230	235	240
Ala	Ala	Asp	Ile	Gln	Ser	Tyr	Met	Asp	Met	Leu	Asn	Pro	Glu	Leu	Gly	245	250	255	

Leu Pro Trp Gly Thr Ile Gly Lys Pro Ile Pro Pro Pro Pro Pro Pro
 260 265 270
 Ser Phe Pro Pro Pro Pro Pro Pro Gly Thr Gln Leu Pro Pro Pro
 275 280 285
 Pro Pro Ser Tyr Pro Ser Pro Lys Pro Pro Val Gly Pro Gln Ala Ala
 290 295 300
 Asp Ile Tyr Met Gln Thr Lys Asn Lys Leu Arg His Val Glu Thr Glu
 305 310 315 320
 Ala Leu Lys Lys Glu Pro Ser Ser Cys Asp Gly His Asp Gly Leu Arg
 325 330 335
 Arg Gln Asp Ser Ser Arg Lys Pro Arg Ala Phe Ser Lys Gln Pro Ser
 340 345 350
 Thr Gly Asp Tyr Tyr Arg Gln Leu Gly Arg Cys Pro Gly Glu Thr Leu
 355 360 365
 Val Ala Arg Pro Gly Met Ala His Arg Glu Glu Ala Glu Leu Pro Gly
 370 375 380
 Asn His Val Pro Asn Gly Cys Ala Ala Asp Pro Lys Ala Ser Arg Glu
 385 390 395 400
 Gln Gln Leu Pro Pro Pro Pro Pro Pro Pro Leu Pro Glu Ala Ala
 405 410 415
 Ser Ser Pro Pro Pro Val Pro Pro Leu Pro Leu Glu Gly Ala Gly Pro
 420 425 430
 Gly Cys Gly Gln Arg Arg Ser Ser Ser Pro Thr Gly Ser Thr Lys Ser
 435 440 445
 Phe Asn Val Met Phe Pro Met Gly Asp Asn Ser Glu Leu Leu Ala Glu
 450 455 460
 Ile Lys Ala Gly Lys Ser Leu Lys Pro Thr Pro Gln Ser Lys Gly Leu
 465 470 475 480
 Thr Thr Val Phe Ser Gly Ser Arg Gln Pro Ala Phe Gln Pro Asp Trp
 485 490 495
 Pro Leu Pro Ser Val Ser Pro Ala Leu Leu Pro Val Arg Ser Pro Thr
 500 505 510

Pro Pro Ala Ala Gly Phe Gln Pro Leu Leu Asn Gly Ser Leu Val Pro
 515 520 525
 Val Pro Pro Thr Thr Pro Ala Pro Gly Val Gln Leu Asp Val Glu Ala
 530 535 540
 Leu Ile Pro Thr His Asp Glu Gln Gly Arg Pro Lys Pro Glu Trp Lys
 545 550 555 560
 Arg Gln Val Met Val Gly Lys Met Gln Leu Lys Met Glu Glu Glu Glu
 565 570 575
 Glu Gln Arg Trp Lys Gln Arg Ala Ala Thr Gly Arg Ala Pro Arg Gln
 580 585 590
 Arg Pro Lys Trp Thr Leu Pro Arg Ala Trp Ser Gly Gly Ser Gly Arg
 595 600 605
 Ser Leu Thr Pro Ala Ser Pro Pro Ala Gly Gln Thr Arg Ser Leu Pro
 610 615 620
 Ala Asp Ala Ala Pro Arg Ser His Tyr Thr Thr Gln Asp Met Gln Lys
 625 630 635 640
 Leu Thr Ala Ala Ser Ser Cys Cys Tyr Pro Arg Glu Gly Trp Arg Tyr
 645 650 655
 Pro Arg Glu Gly Trp Arg Tyr Ser Arg Glu His Asn Ala Ile Leu Trp
 660 665 670
 Pro Phe Gly Glu Leu Met Thr Glu Ala Asp Ile Leu Arg Ile Glu Gln
 675 680 685
 Gln Ser Arg Thr Cys Ser Cys Arg Pro Leu Thr Arg Ala Ser Arg Trp
 690 695 700
 Arg Arg Cys Leu Arg Arg Pro Asp Cys Arg Gly Arg Phe Ala Trp Ala
 705 710 715 720
 Ala Arg Thr Gly Ser Thr Gly Ala Ala Arg Leu Trp Arg Ala Arg Ser
 725 730 735
 Ser Ser Ala Ala Ser Pro Cys Ser Ile Thr Ala Pro Pro Thr Ser Cys
 740 745 750
 Ala His Trp Thr Arg Arg Pro Arg Ala Val Arg Ala Ala Ser Pro Arg
 755 760 765

Ser	Pro	Leu	Ala	Pro	Arg	Ser	Ala	Ser	Pro	Ser	Cys	Arg	Arg	Thr	Thr	770	775	780
Trp	Arg	Pro	Ala	Leu	Ala	Ser	Pro	Ala	Pro	Pro	Pro	Pro	Thr	Ala	Arg	785	790	795
Trp	Pro	Thr	Gly	Ser	Pro	Trp	Thr	Pro	Trp	Ala	Arg	Leu	Arg	His	Arg	805	810	815
Ile	Ala	Arg	Arg	Arg	Tyr	Leu	Ser	Pro	Ser	Ser	Trp	Arg	Ala	Gly	Arg	820	825	830
Pro	Ser	Ala	Arg	Asn	Cys	Ala	Ala	Ser	Arg	Thr	Thr	Ser	Thr	Cys	Ala	835	840	845
Arg	Ser	Ala	Ser	Phe	Thr	Ser	Ser	Trp	Ser	Thr	Gly	Ala	Ser	Gly	Pro	850	855	860
Ser	Ser	Asp	Arg	Ala	Phe	Arg	Gly	Pro	Gly	Ala	Pro	Arg	Gln	Thr	Ala	865	870	875
Pro	Trp	Arg	Asp	Gly	Arg	Pro	Cys	Trp	Pro	Glu	Leu	Glu	Ala	Thr	Asp	885	890	895
Ala	Pro	Arg	Leu	Pro	Val	Ser	Lys	Gly	Glu	Ala	His	Ser	Pro	Asn	Glu	900	905	910
Arg	Leu	Arg	Gln	Leu	Leu	Arg	Gln	Arg	Gln	Ala	Val	Gly	Lys	Leu	Leu	915	920	925
His	His	Trp	Arg	Ser	Leu	Arg	Arg	His	Val	Pro	Pro	Ser	Pro	Gly	Leu	930	935	940
Ala	His	Gly	Val	Tyr	Trp	Pro	Gln	His	Phe	Leu	Ser	Pro	Leu	Asp	Gly	945	950	955
Gly	Ala	Pro	Pro	Arg	Tyr	Glu	Ser	Leu	Thr	Leu	Asp	Leu	Phe	Met	Leu	965	970	975
Gly	Tyr	Phe	Gln	Leu	Pro	Glu	Met	Gly	Leu	Ser	Arg	Glu	Asp	Arg	Lys	980	985	990
Phe	Arg	His	Leu	Leu	Cys	Tyr	Glu	Met	Phe	His	Arg	Leu	Asp	Ser	His	995	1000	1005
Pro	Trp	Glu	Arg	Ile	Arg	Leu	Phe	His	Arg	Val	Val	Leu	Glu	Glu	Val	1010	1015	1020

Glu Ala Gly Arg Arg Gly Trp Ser Asp Gly Phe Glu Asp Leu Arg His
 1025 1030 1035 1040

Arg Phe Phe Gly Asn Gly Leu Glu Ala Gly Pro Ala Pro Glu Glu Gln
 1045 1050 1055

Ala Lys Lys Lys Glu Glu Lys Gly Lys Glu Gln Glu Arg Thr Glu Glu
 1060 1065 1070

Ala Ala Pro Val Gln Lys Gly Asp Pro Pro Lys Gly Gln Arg Glu Ala
 1075 1080 1085

Leu Ala Pro Val Pro Gln Pro Pro Pro Pro Ala Arg Pro Pro Ala
 1090 1095 1100

Arg Arg Ala Ser Pro Pro Arg Leu Pro Gly Ser Gln Thr Leu Arg Val
 1105 1110 1115 1120

Pro Lys Pro Pro Pro Lys Thr Leu Trp Asn
 1125 1130

<210> 118

<211> 711

<212> PRT

<213> Homo sapiens

<400> 118

Met Gly Trp Leu Pro Leu Leu Leu Leu Thr Gln Cys Leu Gly Val
 1 5 10 15

Pro Gly Gln Arg Ser Pro Leu Asn Asp Phe Gln Val Leu Arg Gly Thr
 20 25 30

Glu Leu Gln His Leu Leu His Ala Val Val Pro Gly Pro Trp Gln Glu
 35 40 45

Asp Val Ala Asp Ala Glu Glu Cys Ala Gly Arg Cys Gly Pro Leu Met
 50 55 60

Asp Cys Arg Ala Phe His Tyr Asn Val Ser Ser His Gly Cys Gln Leu
 65 70 75 80

Leu Pro Trp Thr Gln His Ser Pro His Thr Arg Leu Arg Arg Ser Gly
 85 90 95

Arg Cys Asp Leu Phe Gln Lys Lys Asp Tyr Val Arg Thr Cys Ile Met
 100 105 110

Asn	Asn	Gly	Val	Gly	Tyr	Arg	Gly	Thr	Met	Ala	Thr	Thr	Val	Gly	Gly	115	120	125	
Leu	Pro	Cys	Gln	Ala	Trp	Ser	His	Lys	Phe	Pro	Asn	Asp	His	Lys	Tyr	130	135	140	
Thr	Pro	Thr	Leu	Arg	Asn	Gly	Leu	Glu	Glu	Asn	Phe	Cys	Arg	Asn	Pro	145	150	155	160
Asp	Gly	Asp	Pro	Gly	Gly	Pro	Trp	Cys	Tyr	Thr	Thr	Asp	Pro	Ala	Val	165	170	175	
Arg	Phe	Gln	Ser	Cys	Gly	Ile	Lys	Ser	Cys	Arg	Glu	Ala	Ala	Cys	Val	180	185	190	
Trp	Cys	Asn	Gly	Glu	Glu	Tyr	Arg	Gly	Ala	Val	Asp	Arg	Thr	Glu	Ser	195	200	205	
Gly	Arg	Glu	Cys	Gln	Arg	Trp	Asp	Leu	Gln	His	Pro	His	Gln	His	Pro	210	215	220	
Phe	Glu	Pro	Gly	Lys	Phe	Leu	Asp	Gln	Gly	Leu	Asp	Asp	Asn	Tyr	Cys	225	230	235	240
Arg	Asn	Pro	Asp	Gly	Ser	Glu	Arg	Pro	Trp	Cys	Tyr	Thr	Thr	Asp	Pro	245	250	255	
Gln	Ile	Glu	Arg	Glu	Phe	Cys	Asp	Leu	Pro	Arg	Cys	Gly	Ser	Glu	Ala	260	265	270	
Gln	Pro	Arg	Gln	Glu	Ala	Thr	Thr	Val	Ser	Cys	Phe	Arg	Gly	Lys	Gly	275	280	285	
Glu	Gly	Tyr	Arg	Gly	Thr	Ala	Asn	Thr	Thr	Thr	Ala	Gly	Val	Pro	Cys	290	295	300	
Gln	Arg	Trp	Asp	Ala	Gln	Ile	Pro	His	Gln	His	Arg	Phe	Thr	Pro	Glu	305	310	315	320
Lys	Tyr	Ala	Cys	Lys	Asp	Leu	Arg	Glu	Asn	Phe	Cys	Arg	Asn	Pro	Asp	325	330	335	
Gly	Ser	Glu	Ala	Pro	Trp	Cys	Phe	Thr	Leu	Arg	Pro	Gly	Met	Arg	Ala	340	345	350	
Ala	Phe	Cys	Tyr	Gln	Ile	Arg	Arg	Cys	Thr	Asp	Asp	Val	Arg	Pro	Gln	355	360	365	

Asp	Cys	Tyr	His	Gly	Ala	Gly	Glu	Gln	Tyr	Arg	Gly	Thr	Val	Ser	Lys	370	375	380	
Thr	Arg	Lys	Gly	Val	Gln	Cys	Gln	Arg	Trp	Ser	Ala	Glu	Thr	Pro	His	385	390	395	400
Lys	Pro	Gln	Phe	Thr	Phe	Thr	Ser	Glu	Pro	His	Ala	Gln	Leu	Glu	Glu	405	410	415	
Asn	Phe	Cys	Arg	Asn	Pro	Asp	Gly	Asp	Ser	His	Gly	Pro	Trp	Cys	Tyr	420	425	430	
Thr	Met	Asp	Pro	Arg	Thr	Pro	Phe	Asp	Tyr	Cys	Ala	Leu	Arg	Arg	Cys	435	440	445	
Ala	Asp	Asp	Gln	Pro	Pro	Ser	Ile	Leu	Asp	Pro	Pro	Asp	Gln	Val	Gln	450	455	460	
Phe	Glu	Lys	Cys	Gly	Lys	Arg	Val	Asp	Arg	Leu	Asp	Gln	Arg	Arg	Ser	465	470	475	480
Lys	Leu	Arg	Val	Val	Gly	Gly	His	Pro	Gly	Asn	Ser	Pro	Trp	Thr	Val	485	490	495	
Ser	Leu	Arg	Asn	Arg	Gln	Gly	Gln	His	Phe	Cys	Gly	Gly	Ser	Leu	Val	500	505	510	
Lys	Glu	Gln	Trp	Ile	Leu	Thr	Ala	Arg	Gln	Cys	Phe	Ser	Ser	Cys	His	515	520	525	
Met	Pro	Leu	Thr	Gly	Tyr	Glu	Val	Trp	Leu	Gly	Thr	Leu	Phe	Gln	Asn	530	535	540	
Pro	Gln	His	Gly	Glu	Pro	Ser	Leu	Gln	Arg	Val	Pro	Val	Ala	Lys	Met	545	550	555	560
Val	Cys	Gly	Pro	Ser	Gly	Ser	Gln	Leu	Val	Leu	Leu	Lys	Leu	Glu	Arg	565	570	575	
Ser	Val	Thr	Leu	Asn	Gln	Arg	Val	Ala	Leu	Ile	Cys	Leu	Pro	Pro	Glu	580	585	590	
Trp	Tyr	Val	Val	Pro	Pro	Gly	Thr	Lys	Cys	Glu	Ile	Ala	Gly	Trp	Gly	595	600	605	
Glu	Thr	Lys	Gly	Thr	Gly	Asn	Asp	Thr	Val	Leu	Asn	Val	Ala	Phe	Leu	610	615	620	

Asn Val Ile Ser Asn Gln Glu Cys Asn Ile Lys His Arg Gly Arg Val
 625 630 635 640

Arg Glu Ser Glu Met Cys Thr Glu Gly Leu Leu Ala Pro Val Gly Ala
 645 650 655

Cys Glu Gly Asp Tyr Gly Gly Pro Leu Ala Cys Phe Thr His Asn Cys
 660 665 670

Trp Val Leu Glu Gly Ile Ile Ile Pro Asn Arg Val Cys Ala Arg Ser
 675 680 685

Arg Trp Pro Ala Val Phe Thr Arg Val Ser Val Phe Val Asp Trp Ile
 690 695 700

His Lys Val Met Arg Leu Gly
 705 710

<210> 119

<211> 711

<212> PRT

<213> Homo sapiens

<400> 119

Met Gly Trp Leu Pro Leu Leu Leu Leu Leu Thr Gln Cys Leu Gly Val
 1 5 10 15

Pro Gly Gln Arg Ser Pro Leu Asn Asp Phe Gln Val Leu Arg Gly Thr
 20 25 30

Glu Leu Gln His Leu Leu His Ala Val Val Pro Gly Pro Trp Gln Glu
 35 40 45

Asp Val Ala Asp Ala Glu Glu Cys Ala Gly Arg Cys Gly Pro Leu Met
 50 55 60

Asp Cys Arg Ala Phe His Tyr Asn Val Ser Ser His Gly Cys Gln Leu
 65 70 75 80

Leu Pro Trp Thr Gln His Ser Pro His Thr Arg Leu Arg Arg Ser Gly
 85 90 95

Arg Cys Asp Leu Phe Gln Lys Lys Asp Tyr Val Arg Thr Cys Ile Met
 100 105 110

Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr Val Gly Gly

115	120	125
Leu Pro Cys Gln Ala Trp Ser His Lys Phe Pro Asn Asp His Lys Tyr		
130	135	140
Thr Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn Phe Cys Arg Asn Pro		
145	150	155
Asp Gly Asp Pro Gly Gly Pro Trp Cys Tyr Thr Thr Asp Pro Ala Val		
	165	170
Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys Arg Glu Ala Ala Cys Val		
	180	185
Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr Glu Ser		
	195	200
Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Gln His Pro		
	210	220
Phe Glu Pro Gly Lys Phe Leu Asp Gln Gly Leu Asp Asp Asn Tyr Cys		
225	230	235
Arg Asn Pro Asp Gly Ser Glu Arg Pro Trp Cys Tyr Thr Thr Asp Pro		
	245	250
Gln Ile Glu Arg Glu Phe Cys Asp Leu Pro Arg Cys Gly Ser Glu Ala		
	260	265
Gln Pro Arg Gln Glu Ala Thr Thr Val Ser Cys Phe Arg Gly Lys Gly		
	275	280
Glu Gly Tyr Arg Gly Thr Ala Asn Thr Thr Thr Ala Gly Val Pro Cys		
	290	295
Gln Arg Trp Asp Ala Gln Ile Pro His Gln His Arg Phe Thr Pro Glu		
305	310	315
Lys Tyr Ala Cys Lys Asp Leu Arg Glu Asn Phe Cys Arg Asn Pro Asp		
	325	330
Gly Ser Glu Ala Pro Trp Cys Phe Thr Leu Arg Pro Gly Met Arg Ala		
	340	345
Ala Phe Cys Tyr Gln Ile Arg Arg Cys Thr Asp Asp Val Arg Pro Gln		
	355	360
Asp Cys Tyr His Gly Ala Gly Glu Gln Tyr Arg Gly Thr Val Ser Lys		

370		375		380
Thr Arg Lys Gly Val Gln Cys Gln Arg Trp Ser Ala Glu Thr Pro His				
385		390		395 400
Lys Pro Gln Phe Thr Phe Thr Ser Glu Pro His Ala Gln Leu Glu Glu				
	405		410	415
Asn Phe Cys Arg Asn Pro Asp Gly Asp Ser His Gly Pro Trp Cys Tyr				
	420		425	430
Thr Met Asp Pro Arg Thr Pro Phe Asp Tyr Cys Ala Leu Arg Arg Cys				
	435		440	445
Ala Asp Asp Gln Pro Pro Ser Ile Leu Asp Pro Pro Asp Gln Val Gln				
	450		455	460
Phe Glu Lys Cys Gly Lys Arg Val Asp Arg Leu Asp Gln Arg Arg Ser				
465		470		475 480
Lys Leu Arg Val Val Gly Gly His Pro Gly Asn Ser Pro Trp Thr Val				
	485		490	495
Ser Leu Arg Asn Arg Gln Gly Gln His Phe Cys Gly Gly Ser Leu Val				
	500		505	510
Lys Glu Gln Trp Ile Leu Thr Ala Arg Gln Cys Phe Ser Ser Cys His				
	515		520	525
Met Pro Leu Thr Gly Tyr Glu Val Trp Leu Gly Thr Leu Phe Gln Asn				
	530		535	540
Pro Gln His Gly Glu Pro Ser Leu Gln Arg Val Pro Val Ala Lys Met				
545		550		555 560
Val Cys Gly Pro Ser Gly Ser Gln Leu Val Leu Leu Lys Leu Glu Arg				
	565		570	575
Ser Val Thr Leu Asn Gln Arg Val Ala Leu Ile Cys Leu Pro Pro Glu				
	580		585	590
Trp Tyr Val Val Pro Pro Gly Thr Lys Cys Glu Ile Ala Gly Trp Gly				
	595		600	605
Glu Thr Lys Gly Thr Gly Asn Asp Thr Val Leu Asn Val Ala Leu Leu				
	610		615	620
Asn Val Ile Ser Asn Gln Glu Cys Asn Ile Lys His Arg Gly Arg Val				

625		630		635		640
Arg Glu Ser Glu Met Cys Thr Glu Gly Leu Leu Ala Pro Val Gly Ala						
	645		650		655	
Cys Glu Gly Asp Tyr Gly Gly Pro Leu Ala Cys Phe Thr His Asn Cys						
	660		665		670	
Trp Val Leu Glu Gly Ile Ile Ile Pro Asn Arg Val Cys Ala Arg Ser						
	675		680		685	
Arg Trp Pro Ala Val Phe Thr Arg Val Ser Val Phe Val Asp Trp Ile						
	690		695		700	
His Lys Val Met Arg Leu Gly						
705		710				

<210> 120

<211> 711

<212> PRT

<213> Homo sapiens

<400> 120

Met Gly Trp Leu Pro Leu Leu Leu Leu Leu Thr Gln Tyr Leu Gly Val														
1		5				10						15		
Pro Gly Gln Arg Ser Pro Leu Asn Asp Phe Gln Val Leu Arg Gly Thr														
	20					25						30		
Glu Leu Gln His Leu Leu His Ala Val Val Pro Gly Pro Trp Gln Glu														
	35					40						45		
Asp Val Ala Asp Ala Glu Glu Cys Ala Gly Arg Cys Gly Pro Leu Met														
	50					55						60		
Asp Cys Arg Ala Phe His Tyr Asn Val Ser Ser His Gly Cys Gln Leu														
	65				70					75				80
Leu Pro Trp Thr Gln His Ser Pro His Thr Arg Leu Arg Arg Ser Gly														
			85					90					95	
Arg Cys Asp Leu Phe Gln Lys Lys Asp Tyr Val Arg Thr Cys Ile Met														
	100						105					110		
Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr Val Gly Gly														
	115						120					125		

Leu	Pro	Cys	Gln	Ala	Trp	Ser	His	Lys	Phe	Pro	Asn	Asp	His	Lys	Tyr	130	135	140	
Thr	Pro	Thr	Leu	Arg	Asn	Gly	Leu	Glu	Glu	Asn	Phe	Cys	Arg	Asn	Pro	145	150	155	160
Asp	Gly	Asp	Pro	Gly	Gly	Pro	Trp	Cys	Tyr	Thr	Thr	Asp	Pro	Ala	Val	165	170	175	
Arg	Phe	Gln	Ser	Cys	Gly	Ile	Lys	Ser	Cys	Arg	Glu	Ala	Ala	Cys	Val	180	185	190	
Trp	Cys	Asn	Gly	Glu	Glu	Tyr	Arg	Gly	Ala	Val	Asp	Arg	Thr	Glu	Ser	195	200	205	
Gly	Arg	Glu	Cys	Gln	Arg	Trp	Asp	Leu	Gln	His	Pro	His	Gln	His	Pro	210	215	220	
Phe	Glu	Pro	Gly	Lys	Phe	Leu	Asp	Gln	Gly	Leu	Asp	Asp	Asn	Tyr	Cys	225	230	235	240
Arg	Asn	Pro	Asp	Gly	Ser	Glu	Arg	Pro	Trp	Cys	Tyr	Thr	Thr	Asp	Pro	245	250	255	
Gln	Ile	Glu	Arg	Glu	Phe	Cys	Asp	Leu	Pro	Arg	Cys	Gly	Ser	Glu	Ala	260	265	270	
Gln	Pro	Arg	Gln	Glu	Ala	Thr	Thr	Val	Ser	Cys	Phe	Arg	Gly	Lys	Gly	275	280	285	
Glu	Gly	Tyr	Arg	Gly	Thr	Ala	Asn	Thr	Thr	Thr	Ala	Gly	Val	Pro	Cys	290	295	300	
Gln	Arg	Trp	Asp	Ala	Gln	Ile	Pro	His	Gln	His	Arg	Phe	Thr	Pro	Glu	305	310	315	320
Lys	Tyr	Ala	Cys	Lys	Asp	Leu	Arg	Glu	Asn	Phe	Cys	Arg	Asn	Pro	Asp	325	330	335	
Gly	Ser	Glu	Ala	Pro	Trp	Cys	Phe	Thr	Leu	Arg	Pro	Gly	Met	Arg	Ala	340	345	350	
Ala	Phe	Cys	Tyr	Gln	Ile	Arg	Arg	Cys	Thr	Asp	Asp	Val	Arg	Pro	Gln	355	360	365	
Asp	Cys	Tyr	His	Gly	Ala	Gly	Glu	Gln	Tyr	Arg	Gly	Thr	Val	Ser	Lys	370	375	380	

Thr	Arg	Lys	Gly	Val	Gln	Cys	Gln	Arg	Trp	Ser	Ala	Glu	Thr	Pro	His	385	390	395	400
Lys	Pro	Gln	Phe	Thr	Phe	Thr	Ser	Glu	Pro	His	Ala	Gln	Leu	Glu	Glu	405	410	415	
Asn	Phe	Cys	Arg	Asn	Pro	Asp	Gly	Asp	Ser	His	Gly	Pro	Trp	Cys	Tyr	420	425	430	
Thr	Met	Asp	Pro	Arg	Thr	Pro	Phe	Asp	Tyr	Cys	Ala	Leu	Arg	Arg	Cys	435	440	445	
Ala	Asp	Asp	Gln	Pro	Pro	Ser	Ile	Leu	Asp	Pro	Pro	Asp	Gln	Val	Gln	450	455	460	
Phe	Glu	Lys	Cys	Gly	Lys	Arg	Val	Asp	Arg	Leu	Asp	Gln	Arg	Arg	Ser	465	470	475	480
Lys	Leu	Arg	Val	Val	Gly	Gly	His	Pro	Gly	Asn	Ser	Pro	Trp	Thr	Val	485	490	495	
Ser	Leu	Arg	Asn	Arg	Gln	Gly	Gln	His	Phe	Cys	Gly	Gly	Ser	Leu	Val	500	505	510	
Lys	Glu	Gln	Trp	Ile	Leu	Thr	Ala	Arg	Gln	Cys	Phe	Ser	Ser	Cys	His	515	520	525	
Met	Pro	Leu	Thr	Gly	Tyr	Glu	Val	Trp	Leu	Gly	Thr	Leu	Phe	Gln	Asn	530	535	540	
Pro	Gln	His	Gly	Glu	Pro	Ser	Leu	Gln	Arg	Val	Pro	Val	Ala	Lys	Met	545	550	555	560
Val	Cys	Gly	Pro	Ser	Gly	Ser	Gln	Leu	Val	Leu	Leu	Lys	Leu	Glu	Arg	565	570	575	
Ser	Val	Thr	Leu	Asn	Gln	Arg	Val	Ala	Leu	Ile	Cys	Leu	Pro	Pro	Glu	580	585	590	
Trp	Tyr	Val	Val	Pro	Pro	Gly	Thr	Lys	Cys	Glu	Ile	Ala	Gly	Trp	Gly	595	600	605	
Glu	Thr	Lys	Gly	Thr	Gly	Asn	Asp	Thr	Val	Leu	Asn	Val	Ala	Leu	Leu	610	615	620	
Asn	Val	Ile	Ser	Asn	Gln	Glu	Cys	Asn	Ile	Lys	His	Arg	Gly	Arg	Val	625	630	635	640

Arg Glu Ser Glu Met Cys Thr Glu Gly Leu Leu Ala Pro Val Gly Ala
645 650 655

Cys Glu Gly Asp Tyr Gly Gly Pro Leu Ala Cys Phe Thr His Asn Cys
660 665 670

Trp Val Leu Glu Gly Ile Ile Ile Pro Asn Arg Val Cys Ala Arg Ser
675 680 685

Arg Trp Pro Ala Val Phe Thr Arg Val Ser Val Phe Val Asp Trp Ile
690 695 700

His Lys Val Met Arg Leu Gly
705 710

<210> 121

<211> 567

<212> PRT

<213> Homo sapiens

<400> 121

Met Thr Ser Arg Cys Ser Gly Ala Gln Ser Tyr Leu Leu His Ala Val
1 5 10 15

Val Pro Gly Pro Trp Gln Glu Asp Val Ala Asp Ala Glu Glu Cys Ala
20 25 30

Gly Arg Cys Gly Leu Leu Met Asp Cys Trp Ala Phe His Tyr Asn Val
35 40 45

Ser Ser His Gly Cys Gln Leu Leu Pro Trp Thr Gln His Ser Pro His
50 55 60

Ser Arg Leu Arg His Ser Gly Arg Cys Asp Leu Phe Gln Lys Lys Asp
65 70 75 80

Tyr Ile Arg Thr Cys Ile Met Asn Asn Gly Val Gly Tyr Arg Asp Thr
85 90 95

Met Ala Thr Thr Val Gly Gly Leu Ser Cys Gln Ala Trp Ser His Lys
100 105 110

Phe Pro Asn Asp His Gln Tyr Met Pro Thr Leu Arg Asn Gly Leu Glu
115 120 125

Glu Asn Phe Cys Arg Asn Pro Asp Gly Asp Pro Gly Gly Pro Trp Cys
130 135 140

His	Thr	Thr	Asp	Pro	Ala	Val	Arg	Phe	Gln	Ser	Cys	Gly	Ile	Lys	Ser	145	150	155	160
Cys	Leu	Val	Ala	Ala	Cys	Val	Trp	Cys	Asn	Gly	Glu	Glu	Tyr	Arg	Gly	165	170	175	
Ala	Val	Asp	Arg	Thr	Glu	Ser	Gly	Arg	Glu	Cys	Gln	Arg	Trp	Asp	Leu	180	185	190	
Gln	His	Pro	His	Gln	His	Pro	Phe	Glu	Pro	Gly	Lys	Phe	Leu	Asp	Gln	195	200	205	
Gly	Leu	Asp	Asp	Asn	Tyr	Cys	Arg	Ser	Pro	Asp	Gly	Ser	Gln	Arg	Pro	210	215	220	
Trp	Cys	Tyr	Thr	Thr	Asp	Pro	Gln	Ile	Glu	Arg	Glu	Phe	Cys	Asp	Leu	225	230	235	240
Pro	Arg	Cys	Gly	Ser	Glu	Ala	Gln	Pro	Arg	Gln	Glu	Ala	Thr	Ser	Val	245	250	255	
Ser	Cys	Phe	Arg	Gly	Lys	Gly	Glu	Gly	Tyr	Arg	Gly	Thr	Ala	Asn	Thr	260	265	270	
Thr	Thr	Ala	Gly	Val	Pro	Cys	Gln	Arg	Trp	Asp	Ala	Gln	Ile	Pro	His	275	280	285	
Gln	His	Arg	Phe	Thr	Pro	Glu	Lys	Tyr	Ala	Cys	Lys	Asp	Leu	Arg	Glu	290	295	300	
Asn	Phe	Cys	Arg	Asn	Pro	Asp	Gly	Ser	Glu	Ala	Pro	Trp	Cys	Phe	Thr	305	310	315	320
Leu	Arg	Pro	Gly	Thr	Arg	Val	Gly	Phe	Cys	Tyr	Gln	Ile	Arg	Arg	Cys	325	330	335	
Thr	Asp	Asp	Val	Arg	Pro	Gln	Asp	Cys	Tyr	His	Gly	Ala	Gly	Glu	Gln	340	345	350	
Tyr	Arg	Gly	Thr	Val	Ser	Lys	Thr	Arg	Lys	Gly	Val	Gln	Cys	Gln	Arg	355	360	365	
Trp	Ser	Ala	Glu	Thr	Pro	His	Lys	Pro	Gln	Phe	Thr	Phe	Thr	Ser	Glu	370	375	380	
Pro	His	Ala	Gln	Leu	Glu	Glu	Asn	Phe	Cys	Gln	Asn	Pro	Asp	Gly	Asp	385	390	395	400

Ser His Gly Pro Trp Cys Tyr Thr Met Asp Pro Arg Thr Pro Phe Asp
 405 410 415
 Tyr Cys Ala Leu Arg Arg Cys Ala Asp Asp Gln Pro Pro Ser Ile Leu
 420 425 430
 Asp Pro Pro Asp Gln Val Gln Phe Glu Lys Cys Gly Lys Arg Val Asp
 435 440 445
 Arg Leu Asp Gln Arg Arg Ser Lys Leu Arg Val Ala Gly Gly His Pro
 450 455 460
 Gly Asn Ser Pro Trp Thr Val Ser Leu Gly Asn Arg Gln Gly Gln His
 465 470 475 480
 Phe Cys Gly Gly Ser Leu Val Lys Glu Gln Trp Ile Leu Thr Ala Arg
 485 490 495
 Gln Cys Phe Ser Ser Cys His Met Pro Leu Thr Gly Tyr Glu Val Trp
 500 505 510
 Leu Gly Thr Leu Phe Gln Asn Pro Gln His Gly Glu Pro Gly Leu Gln
 515 520 525
 Arg Val Pro Val Ala Lys Met Leu Cys Gly Pro Ser Gly Ser Gln Leu
 530 535 540
 Val Leu Leu Lys Leu Glu Arg Ser Val Thr Leu Asn Gln Arg Val Ala
 545 550 555 560
 Leu Ile Cys Leu Pro Pro Glu
 565

<210> 122

<211> 78

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Kringle domain
sequence

<400> 122

Cys Val Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr
 1 5 10 15

Glu	Ser	Gly	Arg	Glu	Cys	Gln	Arg	Trp	Asp	Leu	Gln	His	Pro	His	Gln
			20					25					30		
His	Pro	Phe	Glu	Pro	Gly	Lys	Phe	Leu	Asp	Gln	Gly	Leu	Asp	Asp	Asn
		35					40					45			
Tyr	Cys	Arg	Asn	Pro	Asp	Gly	Ser	Glu	Arg	Pro	Trp	Cys	Tyr	Thr	Thr
	50					55					60				
Asp	Pro	Gln	Ile	Glu	Arg	Glu	Phe	Cys	Asp	Leu	Pro	Arg	Cys		
65					70					75					

<210> 123

<211> 79

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Kringle domain
sequence

<400> 123

Cys	Phe	Arg	Gly	Lys	Gly	Glu	Gly	Tyr	Arg	Gly	Thr	Ala	Asn	Thr	Thr
1				5					10					15	
Thr	Ala	Gly	Val	Pro	Cys	Gln	Arg	Trp	Asp	Ala	Gln	Ile	Pro	His	Gln
			20					25					30		
His	Arg	Phe	Thr	Pro	Glu	Lys	Tyr	Ala	Cys	Lys	Asp	Leu	Arg	Glu	Asn
		35					40					45			
Phe	Cys	Arg	Asn	Pro	Asp	Gly	Ser	Glu	Ala	Pro	Trp	Cys	Phe	Thr	Leu
	50					55					60				
Arg	Pro	Gly	Met	Arg	Ala	Ala	Phe	Cys	Tyr	Gln	Ile	Arg	Arg	Cys	
65					70					75					

<210> 124

<211> 77

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Kringle domain
sequence

<400> 124

Cys Ile Met Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr
1 5 10 15

Val Gly Gly Leu Pro Cys Gln Ala Trp Ser His Lys Phe Pro Asn Asp
20 25 30

His Lys Tyr Thr Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn Phe Cys
35 40 45

Arg Asn Pro Asp Gly Asp Pro Gly Gly Pro Trp Cys Tyr Thr Thr Asp
50 55 60

Pro Ala Val Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys
65 70 75

<210> 125

<211> 80

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Kringle domain
sequence

<400> 125

Cys Val Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr
1 5 10 15

Glu Ser Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Gln
20 25 30

His Pro Phe Glu Pro Gly Lys Phe Leu Asp Gln Gly Leu Asp Asp Asn
35 40 45

Tyr Cys Arg Asn Pro Asp Gly Ser Glu Arg Pro Trp Cys Tyr Thr Thr
50 55 60

Asp Pro Gln Ile Glu Arg Glu Phe Cys Asp Leu Pro Arg Cys Gly Ser
65 70 75 80

<210> 126

<211> 79

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Kringle domain
sequence

<400> 126

Arg Thr Cys Ile Met Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala
1 5 10 15

Thr Thr Val Gly Gly Leu Pro Cys Gln Ala Trp Ser His Lys Phe Pro
20 25 30

Asn Asp His Lys Tyr Thr Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn
35 40 45

Phe Cys Arg Asn Pro Asp Gly Asp Pro Gly Gly Pro Trp Cys Tyr Thr
50 55 60

Thr Asp Pro Ala Val Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys
65 70 75

<210> 127

<211> 81

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Kringle domain
sequence

<400> 127

Cys Phe Arg Gly Lys Gly Glu Gly Tyr Arg Gly Thr Ala Asn Thr Thr
1 5 10 15

Thr Ala Gly Val Pro Cys Gln Arg Trp Asp Ala Gln Ile Pro His Gln
20 25 30

His Arg Phe Thr Pro Glu Lys Tyr Ala Cys Lys Asp Leu Arg Glu Asn
35 40 45

Phe Cys Arg Asn Pro Asp Gly Ser Glu Ala Pro Trp Cys Phe Thr Leu
50 55 60

Arg Pro Gly Met Arg Ala Ala Phe Cys Tyr Gln Ile Arg Arg Cys Thr
65 70 75 80

Asp

<210> 128

<211> 80

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Apple domain
sequence

<400> 128

Asp Phe Gln Val Leu Arg Gly Thr Glu Leu Gln His Leu Leu His Ala
1 5 10 15

Val Val Pro Gly Pro Trp Gln Glu Asp Val Ala Asp Ala Glu Glu Cys
20 25 30

Ala Gly Arg Cys Gly Pro Leu Met Asp Cys Arg Ala Phe His Tyr Asn
35 40 45

Val Ser Ser His Gly Cys Gln Leu Leu Pro Trp Thr Gln His Ser Pro
50 55 60

His Thr Arg Leu Arg Arg Ser Gly Arg Cys Asp Leu Phe Gln Lys Lys
65 70 75 80

<210> 129

<211> 431

<212> PRT

<213> Mus musculus

<400> 129

Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Thr Leu Pro Ser
1 5 10 15

Leu Gly Ala Gly Gly Glu Ser Pro Glu Ala Pro Pro Gln Ser Trp Thr
20 25 30

Gln Leu Trp Leu Phe Arg Phe Leu Leu Asn Val Ala Gly Tyr Ala Ser
35 40 45

Phe	Met	Val	Pro	Gly	Tyr	Leu	Leu	Val	Gln	Tyr	Leu	Arg	Arg	Lys	Asn	50	55	60	
Tyr	Leu	Glu	Thr	Gly	Arg	Gly	Leu	Cys	Phe	Pro	Leu	Val	Lys	Ala	Cys	65	70	75	80
Val	Phe	Gly	Asn	Glu	Pro	Lys	Ala	Pro	Asp	Glu	Val	Leu	Leu	Ala	Pro	85	90	95	
Arg	Thr	Glu	Thr	Ala	Glu	Ser	Thr	Pro	Ser	Trp	Gln	Val	Leu	Lys	Leu	100	105	110	
Val	Phe	Cys	Ala	Ser	Gly	Leu	Gln	Val	Ser	Tyr	Leu	Thr	Trp	Gly	Ile	115	120	125	
Leu	Gln	Glu	Arg	Val	Met	Thr	Gly	Ser	Tyr	Gly	Ala	Thr	Ala	Thr	Ser	130	135	140	
Pro	Gly	Glu	His	Phe	Thr	Asp	Ser	Gln	Phe	Leu	Val	Leu	Met	Asn	Arg	145	150	155	160
Val	Leu	Ala	Leu	Val	Val	Ala	Gly	Leu	Tyr	Cys	Val	Leu	Arg	Lys	Gln	165	170	175	
Pro	Arg	His	Gly	Ala	Pro	Met	Tyr	Arg	Tyr	Ser	Phe	Ala	Ser	Leu	Ser	180	185	190	
Asn	Val	Leu	Ser	Ser	Trp	Cys	Gln	Tyr	Glu	Ala	Leu	Lys	Phe	Val	Ser	195	200	205	
Phe	Pro	Thr	Gln	Val	Leu	Ala	Lys	Ala	Ser	Lys	Val	Ile	Pro	Val	Met	210	215	220	
Met	Met	Gly	Lys	Leu	Val	Ser	Arg	Arg	Ser	Tyr	Glu	His	Trp	Glu	Tyr	225	230	235	240
Leu	Thr	Ala	Gly	Leu	Ile	Ser	Ile	Gly	Val	Ser	Met	Phe	Leu	Leu	Ser	245	250	255	
Ser	Gly	Pro	Glu	Pro	Arg	Ser	Ser	Pro	Ala	Thr	Thr	Leu	Ser	Gly	Leu	260	265	270	
Val	Leu	Leu	Ala	Gly	Tyr	Ile	Ala	Phe	Asp	Ser	Phe	Thr	Ser	Asn	Trp	275	280	285	
Gln	Asp	Ala	Leu	Phe	Ala	Tyr	Lys	Met	Ser	Ser	Val	Gln	Met	Met	Phe	290	295	300	

Gly Val Asn Leu Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu
 305 310 315 320

Gln Gly Ala Leu Leu Glu Gly Ala Arg Phe Met Gly Arg His Ser Glu
 325 330 335

Phe Ala Leu His Ala Leu Leu Leu Ser Ile Cys Ser Ala Phe Gly Gln
 340 345 350

Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr
 355 360 365

Ile Ile Met Thr Leu Arg Gln Ala Ile Ala Ile Leu Leu Ser Cys Leu
 370 375 380

Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val
 385 390 395 400

Val Phe Thr Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Lys Gln
 405 410 415

Arg Gly Lys Lys Ala Val Pro Thr Glu Pro Pro Val Gln Lys Val
 420 425 430

<210> 130

<211> 465

<212> PRT

<213> *Drosophila melanogaster*

<400> 130

Met Tyr Ala Tyr Asn Lys Met Gly Arg Val Pro Glu Leu Val Ile Cys
 1 5 10 15

Ser Phe Ile Val Val Thr Leu Leu Val Ile His Phe Phe Ser Asp Leu
 20 25 30

Leu Arg Ala Ser Leu Gly Gly Tyr Tyr Asn Gln Asp Val Thr Leu Ser
 35 40 45

Gln Leu Val Glu Ser Gln Asn Ser Asp Tyr Ala Trp Phe Leu Lys Leu
 50 55 60

Leu Val Asn Cys Phe Gly Tyr Ser Cys Val Phe Val Pro Gly Phe Leu
 65 70 75 80

Ile Tyr Lys Tyr Val Gly Arg Ile Asn Tyr Leu Glu Arg Gly Asn Lys

340	345	350
Ser Met Gln Gly Gly Phe Met Asp Ser Leu Ala Phe Ala Thr Glu His		
355	360	365
Pro Lys Phe Val Phe Asp Met Val Val Leu Ser Val Cys Ser Ala Val		
370	375	380
Gly Gln Leu Phe Ile Tyr His Thr Ile Asp Val Phe Gly Pro Val Val		
385	390	395 400
Phe Thr Ile Ile Met Thr Leu Arg Gln Ala Val Ala Ile Met Leu Ser		
405	410	415
Cys Phe Ile Tyr Gln His Ser Ile Ser Leu Leu Gly Ile Phe Gly Val		
420	425	430
Leu Ile Val Phe Val Ala Ile Phe Leu Arg Val Tyr Cys Thr Gln Arg		
435	440	445
Leu Arg Ala Ile Arg Lys Arg Ala Glu Ala Asn Lys Pro Lys Met Ala		
450	455	460

Val
465

<210> 131
 <211> 465
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 131

Met Tyr Ala Tyr Asn Lys Met Gly Arg Val Pro Glu Leu Val Ile Cys
1 5 10 15
Ser Phe Ile Val Val Ser Leu Leu Val Ile His Phe Phe Ser Asp Leu
20 25 30
Leu Arg Ala Ser Leu Gly Gly Tyr Tyr Asn Gln Asp Val Thr Leu Ser
35 40 45
Gln Leu Val Glu Ser Gln Asn Ser Asp Tyr Ala Trp Phe Leu Lys Leu
50 55 60
Leu Val Asn Cys Phe Gly Tyr Ser Cys Val Phe Val Pro Gly Phe Leu
65 70 75 80

Ile	Tyr	Lys	Tyr	Val	Gly	Arg	Ile	Asn	Tyr	Leu	Glu	Arg	Gly	Asn	Lys	85	90	95	
Thr	Phe	Leu	His	Lys	Ala	Ile	Asn	Met	Cys	Ile	Thr	Gly	Asn	Ser	Gly	100	105	110	
Tyr	Asp	Gln	Leu	Asp	Ala	Gly	Thr	Ser	Thr	Ala	Asp	Lys	Asp	Arg	Pro	115	120	125	
Ala	Ala	Ser	Thr	Ala	Pro	Lys	Arg	Thr	Ser	Ser	Gln	Glu	Ala	Val	Gln	130	135	140	
Leu	Leu	Trp	Cys	Phe	Gly	Gly	Leu	Met	Ile	Ser	Tyr	Leu	Thr	Trp	Gly	145	150	155	160
Val	Leu	Gln	Glu	Lys	Ile	Met	Thr	Gln	Asn	Tyr	Leu	Asn	Phe	Thr	Gly	165	170	175	
Glu	Ser	Ala	Lys	Phe	Lys	Asp	Ser	Gln	Phe	Leu	Val	Phe	Ser	Asn	Arg	180	185	190	
Leu	Leu	Ala	Phe	Leu	Val	Ala	Leu	Ala	Tyr	Leu	Gln	Trp	Gln	Pro	Ser	195	200	205	
Pro	Val	Arg	His	Arg	Ala	Pro	Leu	Tyr	Lys	Tyr	Ser	Tyr	Ala	Ser	Phe	210	215	220	
Ser	Asn	Ile	Met	Ser	Ala	Trp	Phe	Gln	Tyr	Glu	Ala	Leu	Lys	Phe	Val	225	230	235	240
Asn	Phe	Pro	Thr	Gln	Val	Leu	Ala	Lys	Ser	Cys	Lys	Ile	Ile	Pro	Val	245	250	255	
Met	Leu	Met	Gly	Lys	Ile	Met	Ser	Lys	Ala	Lys	Tyr	Glu	Ser	Tyr	Glu	260	265	270	
Tyr	Val	Thr	Ala	Leu	Leu	Ile	Ser	Leu	Gly	Met	Ile	Phe	Phe	Met	Ser	275	280	285	
Gly	Ser	Ser	Asp	Ser	Ser	Lys	Ala	Ser	Gly	Val	Thr	Thr	Leu	Thr	Gly	290	295	300	
Ile	Phe	Leu	Leu	Ser	Met	Tyr	Met	Val	Phe	Asp	Ser	Phe	Thr	Ala	Asn	305	310	315	320
Trp	Gln	Gly	Ser	Leu	Phe	Lys	Ser	Tyr	Gly	Met	Thr	Pro	Leu	Gln	Met	325	330	335	

Met Cys Gly Val Asn Leu Phe Ser Ser Ile Phe Thr Gly Ala Ser Leu
 340 345 350

Ser Met Gln Gly Gly Phe Met Asp Ser Leu Ala Phe Ala Thr Glu His
 355 360 365

Pro Lys Phe Val Phe Asp Met Val Val Leu Ser Val Cys Ser Ala Val
 370 375 380

Gly Gln Leu Phe Ile Tyr His Thr Ile Asp Val Phe Gly Pro Val Val
 385 390 395 400

Phe Thr Ile Ile Met Thr Leu Arg Gln Ala Val Ala Ile Met Leu Ser
 405 410 415

Cys Phe Ile Tyr Gln His Ser Ile Ser Leu Leu Gly Ile Phe Gly Val
 420 425 430

Leu Ile Val Phe Val Ala Ile Phe Leu Arg Val Tyr Cys Thr Gln Arg
 435 440 445

Leu Arg Ala Ile Arg Lys Arg Ala Glu Ala Asn Lys Pro Lys Met Ala
 450 455 460

Val
 465

<210> 132

<211> 417

<212> PRT

<213> *Caenorhabditis elegans*

<400> 132

Met Asp Arg Ser Ile Met Pro Ile Asp Ser Pro Ala Arg Asp Lys Pro
 1 5 10 15

Pro Asp Glu Leu Val Trp Pro Leu Arg Leu Phe Leu Ile Leu Leu Gly
 20 25 30

Tyr Ser Thr Val Ala Thr Pro Ala Ala Ile Leu Ile Tyr Tyr Val Arg
 35 40 45

Arg Asn Arg His Ala Phe Glu Thr Pro Tyr Leu Ser Ile Arg Leu Leu
 50 55 60

Leu Arg Ser Phe Ala Val Gly Asn Pro Glu Tyr Gln Leu Ile Pro Thr
 65 70 75 80

Gly	Glu	Lys	Gln	Ala	Arg	Lys	Glu	Asn	Asp	Ser	Ile	Pro	Gln	Thr	Arg	85	90	95	
Ala	Gln	Cys	Ile	Asn	Val	Ile	Ile	Leu	Leu	Leu	Phe	Phe	Phe	Ser	Gly	100	105	110	
Ile	Gln	Val	Thr	Leu	Val	Ala	Met	Gly	Val	Leu	Gln	Glu	Arg	Ile	Ile	115	120	125	
Thr	Arg	Gly	Tyr	Arg	Arg	Ser	Asp	Gln	Leu	Glu	Val	Glu	Asp	Lys	Phe	130	135	140	
Gly	Glu	Thr	Gln	Phe	Leu	Ile	Phe	Cys	Asn	Arg	Ile	Val	Ala	Leu	Val	145	150	155	160
Leu	Ser	Leu	Met	Ile	Leu	Ala	Lys	Asp	Trp	Thr	Lys	Gln	Pro	Pro	His	165	170	175	
Val	Pro	Pro	Leu	Tyr	Val	His	Ser	Tyr	Thr	Ser	Phe	Ser	Asn	Thr	Ile	180	185	190	
Ser	Ser	Trp	Cys	Gln	Tyr	Glu	Ala	Leu	Lys	Tyr	Val	Ser	Phe	Pro	Thr	195	200	205	
Gln	Thr	Ile	Cys	Lys	Ala	Ser	Lys	Val	Val	Val	Thr	Met	Leu	Met	Gly	210	215	220	
Arg	Leu	Val	Arg	Gly	Gln	Arg	Tyr	Ser	Trp	Phe	Glu	Tyr	Gly	Cys	Gly	225	230	235	240
Cys	Thr	Ile	Ala	Phe	Gly	Ala	Ser	Leu	Phe	Leu	Leu	Ser	Ser	Ser	Ser	245	250	255	
Lys	Gly	Ala	Gly	Ser	Thr	Ile	Thr	Tyr	Thr	Ser	Phe	Ser	Gly	Met	Ile	260	265	270	
Leu	Met	Ala	Gly	Tyr	Leu	Leu	Phe	Asp	Ala	Phe	Thr	Leu	Asn	Trp	Gln	275	280	285	
Lys	Ala	Leu	Phe	Asp	Thr	Lys	Pro	Lys	Val	Ser	Lys	Tyr	Gln	Met	Met	290	295	300	
Phe	Gly	Val	Asn	Phe	Phe	Ser	Ala	Ile	Leu	Cys	Ala	Val	Ser	Leu	Ile	305	310	315	320
Glu	Gln	Gly	Thr	Leu	Trp	Ser	Ser	Ile	Lys	Phe	Gly	Ala	Glu	His	Val	325	330	335	

Asp Phe Ser Arg Asp Val Phe Leu Leu Ser Leu Ser Gly Ala Ile Gly
 340 345 350

Gln Ile Phe Ile Tyr Ser Thr Ile Glu Arg Phe Gly Pro Ile Val Phe
 355 360 365

Ala Val Ile Met Thr Ile Arg Gln Ile Phe Ile Arg Asn Thr Leu Ile
 370 375 380

Arg Ala Glu Asp His Arg Gly Val Glu Met Ala Pro Pro Pro Pro Pro
 385 390 395 400

Glu Pro Phe Arg Leu Lys Phe Leu Ser Met Ile Ile Ala Val Ile His
 405 410 415

Ile

<210> 133

<211> 124

<212> PRT

<213> Mus musculus

<400> 133

Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Thr Leu Pro Ser
 1 5 10 15

Leu Gly Ala Gly Gly Glu Ser Pro Glu Ala Pro Pro Gln Ser Trp Thr
 20 25 30

Gln Leu Trp Leu Phe Arg Phe Leu Leu Asn Val Ala Gly Tyr Ala Ser
 35 40 45

Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Leu Arg Arg Lys Asn
 50 55 60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys
 65 70 75 80

Val Phe Gly Asn Glu Pro Lys Ala Pro Asp Glu Val Leu Leu Ala Pro
 85 90 95

Arg Thr Glu Thr Ala Glu Ser Thr Pro Ser Trp Gln Val Leu Lys Leu
 100 105 110

Val Phe Cys Ala Ser Gly Leu Gln Thr Gln Phe Leu

115

120

<210> 134

<211> 286

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DUF6 domain
sequence

<400> 134

Ser	Ser	Ala	Lys	Asn	Ala	Phe	Lys	Lys	Cys	Phe	Lys	Ser	Ile	Phe	Ser
1				5					10					15	

Trp	His	Asn	Glu	Thr	Val	Asn	Ile	Trp	Thr	Tyr	Lys	Lys	Glu	Lys	Phe
			20					25					30		

Leu	Glu	Arg	Leu	Val	Lys	Leu	Ser	His	Leu	Leu	Gly	Phe	Ile	Leu	Phe
		35					40					45			

Phe	Leu	Leu	Ile	Leu	Asp	Phe	Leu	Phe	Leu	Leu	Val	Pro	Ile	Leu	Ala
	50					55					60				

Ser	Val	Thr	Ser	His	Leu	Tyr	Ile	Leu	Gln	Asp	Arg	Val	Val	Phe	Gly
65					70					75					80

Phe	Phe	Thr	Asp	Leu	Cys	Val	His	Asp	Leu	Ala	Gly	Trp	Pro	Phe	Tyr
				85					90					95	

Phe	Leu	Gly	Ala	Phe	Leu	Cys	Leu	Leu	Leu	Ser	Ser	Ile	Tyr	His	Thr
		100					105						110		

Phe	Ser	Cys	His	Ser	Leu	Glu	Lys	Val	Ser	Glu	Phe	Phe	Leu	Lys	Leu
		115					120					125			

Asp	Tyr	Leu	Gly	Ile	Ser	Leu	Leu	Ile	Val	Ala	Ser	Phe	Ile	Pro	Ile
	130					135					140				

Ile	Tyr	Tyr	Ala	Phe	Tyr	Cys	His	Pro	Phe	Phe	Arg	Thr	Leu	Tyr	Ile
145					150					155					160

Ser	Ile	Ile	Leu	Val	Leu	Gly	Leu	Ile	Ala	Ile	Tyr	Val	Ser	Leu	Ser
			165					170						175	

Asp	Lys	Phe	Ser	Ser	Pro	Lys	Phe	Arg	Lys	Arg	Arg	Val	Pro	Leu	Arg
		180						185					190		

Ala Gly Phe Phe Val Leu Leu Gly Leu Ser Gly Val Ile Pro Leu Leu
 195 200 205

His Ala Leu Ile Leu Phe Gly Gly His Glu Asn Leu Lys Val Arg Ile
 210 215 220

Ala Leu Pro Trp Val Leu Leu Met Ala Leu Leu Tyr Ile Val Gly Ala
 225 230 235 240

Val Phe Tyr Gly Thr Arg Ile Pro Glu Arg Phe Phe Arg Cys Pro His
 245 250 255

Ala Gly Lys Phe Asp Ile Val Gly His Ser His Gln Leu Phe His Val
 260 265 270

Leu Val Val Leu Ala Ala Phe Cys His Tyr Arg Ala Val Leu
 275 280 285

<210> 135

<211> 551

<212> PRT

<213> Homo sapiens

<400> 135

Met Leu Pro Leu Leu Leu Leu Pro Leu Leu Trp Gly Gly Ser Leu Gln
 1 5 10 15

Glu Lys Pro Val Tyr Glu Leu Gln Val Gln Lys Ser Val Thr Val Gln
 20 25 30

Glu Gly Leu Cys Val Leu Val Pro Cys Ser Phe Ser Tyr Pro Trp Arg
 35 40 45

Ser Trp Tyr Ser Ser Pro Pro Leu Tyr Val Tyr Trp Phe Arg Asp Gly
 50 55 60

Glu Ile Pro Tyr Tyr Ala Glu Val Val Ala Thr Asn Asn Pro Asp Arg
 65 70 75 80

Arg Val Lys Pro Glu Thr Gln Gly Arg Phe Arg Leu Leu Gly Asp Val
 85 90 95

Gln Lys Lys Asn Cys Ser Leu Ser Ile Gly Asp Ala Arg Met Glu Asp
 100 105 110

Thr Gly Ser Tyr Phe Phe Arg Val Glu Arg Gly Arg Asp Val Lys Tyr

115	120	125
Ser Tyr Gln Gln Asn Lys Leu Asn Leu Glu Val Thr Ala Leu Ile Glu		
130	135	140
Lys Pro Asp Ile His Phe Leu Glu Pro Leu Glu Ser Gly Arg Pro Thr		
145	150	155 160
Arg Leu Ser Cys Ser Leu Pro Gly Ser Cys Glu Ala Gly Pro Pro Leu		
	165	170 175
Thr Phe Ser Trp Thr Gly Asn Ala Leu Ser Pro Leu Asp Pro Glu Thr		
	180	185 190
Thr Arg Ser Ser Glu Leu Thr Leu Thr Pro Arg Pro Glu Asp His Gly		
	195	200 205
Thr Asn Leu Thr Cys Gln Met Lys Arg Gln Gly Ala Gln Val Thr Thr		
	210	215 220
Glu Arg Thr Val Gln Leu Asn Val Ser Tyr Ala Pro Gln Thr Ile Thr		
	225	230 235 240
Ile Phe Arg Asn Gly Ile Ala Leu Glu Ile Leu Gln Asn Thr Ser Tyr		
	245	250 255
Leu Pro Val Leu Glu Gly Gln Ala Leu Arg Leu Leu Cys Asp Ala Pro		
	260	265 270
Ser Asn Pro Pro Ala His Leu Ser Trp Phe Gln Gly Ser Pro Ala Leu		
	275	280 285
Asn Ala Thr Pro Ile Ser Asn Thr Gly Ile Leu Glu Leu Arg Arg Val		
	290	295 300
Arg Ser Ala Glu Glu Gly Gly Phe Thr Cys Arg Ala Gln His Pro Leu		
	305	310 315 320
Gly Phe Leu Gln Ile Phe Leu Asn Leu Ser Val Tyr Ser Leu Pro Gln		
	325	330 335
Leu Leu Gly Pro Ser Cys Ser Trp Glu Ala Glu Gly Leu His Cys Arg		
	340	345 350
Cys Ser Phe Arg Ala Arg Pro Ala Pro Ser Leu Cys Trp Arg Leu Glu		
	355	360 365
Glu Lys Pro Leu Glu Gly Asn Ser Ser Gln Gly Ser Phe Lys Val Asn		

370		375		380
Ser Ser Ser Ala Gly Pro Trp Ala Asn Ser Ser Leu Ile Leu His Gly				
385		390		395 400
Gly Leu Ser Ser Asp Leu Lys Val Ser Cys Lys Ala Trp Asn Ile Tyr				
	405		410	415
Gly Ser Gln Ser Gly Ser Val Leu Leu Leu Gln Gly Arg Ser Asn Leu				
	420		425	430
Gly Thr Gly Val Val Pro Ala Ala Leu Gly Gly Ala Gly Val Met Ala				
	435		440	445
Leu Leu Cys Ile Cys Leu Cys Leu Ile Phe Phe Leu Ile Val Lys Ala				
	450		455	460
Arg Arg Lys Gln Ala Ala Gly Arg Pro Glu Lys Met Asp Asp Glu Asp				
465		470		475 480
Pro Ile Met Gly Thr Ile Thr Ser Gly Ser Arg Lys Lys Pro Trp Pro				
	485		490	495
Asp Ser Pro Gly Asp Gln Ala Ser Pro Pro Gly Asp Ala Pro Pro Leu				
	500		505	510
Glu Glu Gln Lys Glu Leu His Tyr Ala Ser Leu Ser Phe Ser Glu Met				
	515		520	525
Lys Ser Arg Glu Pro Lys Asp Gln Glu Ala Pro Ser Thr Thr Glu Tyr				
	530		535	540
Ser Glu Ile Lys Thr Ser Lys				
545		550		

<210> 136

<211> 551

<212> PRT

<213> Homo sapiens

<400> 136

Met Leu Pro Leu Leu Leu Leu Pro Leu Leu Trp Gly Gly Ser Leu Gln
1 5 10 15

Glu Lys Pro Val Tyr Glu Leu Gln Val Gln Lys Ser Val Thr Val Gln
20 25 30

Glu	Gly	Leu	Cys	Val	Leu	Val	Pro	Cys	Ser	Phe	Ser	Tyr	Pro	Trp	Arg	35	40	45	
Ser	Trp	Tyr	Ser	Ser	Pro	Pro	Leu	Tyr	Val	Tyr	Trp	Phe	Arg	Asp	Gly	50	55	60	
Glu	Ile	Pro	Tyr	Tyr	Ala	Glu	Val	Val	Ala	Thr	Asn	Asn	Pro	Asp	Arg	65	70	75	80
Arg	Val	Lys	Pro	Glu	Thr	Gln	Gly	Arg	Phe	Arg	Leu	Leu	Gly	Asp	Val	85	90	95	
Gln	Lys	Lys	Asn	Cys	Ser	Leu	Ser	Ile	Gly	Asp	Ala	Arg	Met	Glu	Asp	100	105	110	
Thr	Gly	Ser	Tyr	Phe	Phe	Arg	Val	Glu	Arg	Gly	Arg	Asp	Val	Lys	Tyr	115	120	125	
Ser	Tyr	Gln	Gln	Asn	Lys	Leu	Asn	Leu	Glu	Val	Thr	Ala	Leu	Ile	Glu	130	135	140	
Lys	Pro	Asp	Ile	His	Phe	Leu	Glu	Pro	Leu	Glu	Ser	Gly	Arg	Pro	Thr	145	150	155	160
Arg	Leu	Ser	Cys	Ser	Leu	Pro	Gly	Ser	Cys	Glu	Ala	Gly	Pro	Pro	Leu	165	170	175	
Thr	Phe	Ser	Trp	Thr	Gly	Asn	Ala	Leu	Ser	Pro	Leu	Asp	Pro	Glu	Thr	180	185	190	
Thr	Arg	Ser	Ser	Glu	Leu	Thr	Leu	Thr	Pro	Arg	Pro	Glu	Asp	His	Gly	195	200	205	
Thr	Asn	Leu	Thr	Cys	Gln	Met	Lys	Arg	Gln	Gly	Ala	Gln	Val	Thr	Thr	210	215	220	
Glu	Arg	Thr	Val	Gln	Leu	Asn	Val	Ser	Tyr	Ala	Pro	Gln	Thr	Ile	Thr	225	230	235	240
Ile	Phe	Arg	Asn	Gly	Ile	Ala	Leu	Glu	Ile	Leu	Gln	Asn	Thr	Ser	Tyr	245	250	255	
Leu	Pro	Val	Leu	Glu	Gly	Gln	Ala	Leu	Arg	Leu	Leu	Cys	Asp	Ala	Pro	260	265	270	
Ser	Asn	Pro	Pro	Ala	His	Leu	Ser	Trp	Phe	Gln	Gly	Ser	Pro	Ala	Leu	275	280	285	

Asn	Ala	Thr	Pro	Ile	Ser	Asn	Thr	Gly	Ile	Leu	Glu	Leu	Arg	Arg	Val	290	295	300	
Arg	Ser	Ala	Glu	Lys	Gly	Gly	Phe	Thr	Cys	Arg	Ala	Gln	His	Pro	Leu	305	310	315	320
Gly	Phe	Leu	Gln	Ile	Phe	Leu	Asn	Leu	Ser	Val	Tyr	Ser	Leu	Pro	Gln	325	330	335	
Leu	Leu	Gly	Pro	Ser	Cys	Ser	Trp	Glu	Ala	Glu	Gly	Leu	His	Cys	Arg	340	345	350	
Cys	Ser	Phe	Arg	Ala	Trp	Pro	Ala	Pro	Ser	Leu	Cys	Trp	Arg	Leu	Glu	355	360	365	
Glu	Lys	Pro	Leu	Glu	Gly	Asn	Ser	Ser	Gln	Gly	Ser	Phe	Lys	Val	Asn	370	375	380	
Ser	Ser	Ser	Pro	Gly	Pro	Trp	Ala	Asn	Ser	Ser	Leu	Ile	Leu	His	Gly	385	390	395	400
Gly	Leu	Asn	Ser	Asp	Leu	Lys	Val	Ser	Cys	Lys	Ala	Trp	Asn	Ile	Tyr	405	410	415	
Gly	Ser	Gln	Ser	Gly	Ser	Val	Leu	Leu	Leu	Gln	Gly	Arg	Ser	Asn	Leu	420	425	430	
Gly	Thr	Gly	Val	Val	Pro	Ala	Ala	Leu	Gly	Gly	Ala	Gly	Val	Met	Ala	435	440	445	
Leu	Leu	Cys	Ile	Cys	Leu	Cys	Leu	Ile	Phe	Phe	Leu	Ile	Val	Lys	Ala	450	455	460	
Arg	Arg	Lys	Gln	Ala	Ala	Gly	Arg	Pro	Glu	Lys	Met	Asp	Asp	Glu	Asp	465	470	475	480
Pro	Ile	Met	Gly	Thr	Ile	Thr	Ser	Gly	Ser	Arg	Lys	Lys	Pro	Trp	Pro	485	490	495	
Asp	Ser	Pro	Gly	Asp	Gln	Ala	Ser	Pro	Pro	Gly	Asp	Ala	Pro	Pro	Leu	500	505	510	
Glu	Glu	Gln	Lys	Glu	Leu	His	Tyr	Ala	Ser	Leu	Ser	Phe	Ser	Glu	Met	515	520	525	
Lys	Ser	Arg	Glu	Pro	Lys	Asp	Gln	Glu	Ala	Pro	Ser	Thr	Thr	Glu	Tyr	530	535	540	

Ser Glu Ile Lys Thr Ser Lys
545 550

<210> 137
<211> 442
<212> PRT
<213> Homo sapiens

<400> 137

Met Leu Pro Leu Leu Leu Pro Leu Leu Trp Ala Gly Ala Leu Ala Gln
1 5 10 15

Glu Arg Arg Phe Gln Leu Glu Gly Pro Glu Ser Leu Thr Val Gln Glu
20 25 30

Gly Leu Cys Val Leu Val Pro Cys Arg Leu Pro Thr Thr Leu Pro Ala
35 40 45

Ser Tyr Tyr Gly Tyr Gly Tyr Trp Phe Leu Glu Gly Ala Asp Val Pro
50 55 60

Val Ala Thr Asn Asp Pro Asp Glu Glu Val Gln Glu Glu Thr Arg Gly
65 70 75 80

Arg Phe His Leu Leu Trp Asp Pro Arg Arg Lys Asn Cys Ser Leu Ser
85 90 95

Ile Arg Asp Ala Arg Arg Arg Asp Asn Ala Ala Tyr Phe Phe Arg Leu
100 105 110

Lys Ser Lys Trp Met Lys Tyr Gly Tyr Thr Ser Ser Lys Leu Ser Val
115 120 125

Arg Val Met Ala Leu Thr His Arg Pro Asn Ile Ser Ile Pro Gly Thr
130 135 140

Leu Glu Ser Gly His Pro Ser Asn Leu Thr Cys Ser Val Pro Trp Val
145 150 155 160

Cys Glu Gln Gly Thr Pro Pro Ile Phe Ser Trp Met Ser Ala Ala Pro
165 170 175

Thr Ser Leu Gly Pro Arg Thr Thr Gln Ser Ser Val Leu Thr Ile Thr
180 185 190

Pro Arg Pro Gln Asp His Ser Thr Asn Leu Thr Cys Gln Val Thr Phe
195 200 205

Pro Gly Ala Gly Val Thr Met Glu Arg Thr Ile Gln Leu Asn Val Ser
 210 215 220
 Tyr Ala Pro Gln Lys Val Ala Ile Ser Ile Phe Gln Gly Asn Ser Ala
 225 230 235 240
 Ala Phe Lys Ile Leu Gln Asn Thr Ser Ser Leu Pro Val Leu Glu Gly
 245 250 255
 Gln Ala Leu Arg Leu Leu Cys Asp Ala Asp Gly Asn Pro Pro Ala His
 260 265 270
 Leu Ser Trp Phe Gln Gly Phe Pro Ala Leu Asn Ala Thr Pro Ile Ser
 275 280 285
 Asn Thr Gly Val Leu Glu Leu Pro Gln Val Gly Ser Ala Glu Glu Gly
 290 295 300
 Asp Phe Thr Cys Arg Ala Gln His Pro Leu Gly Ser Leu Gln Ile Ser
 305 310 315 320
 Leu Ser Leu Phe Val His Trp Lys Pro Glu Gly Arg Ala Gly Gly Val
 325 330 335
 Leu Gly Ala Val Trp Gly Ala Ser Ile Thr Thr Leu Val Phe Leu Cys
 340 345 350
 Val Cys Phe Ile Phe Arg Val Lys Thr Arg Arg Lys Lys Ala Ala Gln
 355 360 365
 Pro Val Gln Asn Thr Asp Asp Val Asn Pro Val Met Val Ser Gly Ser
 370 375 380
 Arg Gly His Gln His Gln Phe Gln Thr Gly Ile Val Ser Asp His Pro
 385 390 395 400
 Ala Glu Ala Gly Pro Ile Ser Glu Asp Glu Gln Glu Leu His Tyr Ala
 405 410 415
 Val Leu His Phe His Lys Val Gln Pro Gln Glu Pro Lys Val Thr Asp
 420 425 430
 Thr Glu Tyr Ser Glu Ile Lys Ile His Lys
 435 440

<210> 138

<211> 440

<212> PRT

<213> Homo sapiens

<400> 138

Met Leu Pro Leu Leu Leu Pro Leu Leu Trp Ala Gly Ala Leu Ala Gln
1 5 10 15

Glu Arg Arg Phe Gln Leu Glu Gly Pro Glu Ser Leu Thr Val Gln Glu
20 25 30

Gly Leu Cys Val Leu Val Pro Cys Arg Leu Pro Thr Thr Leu Pro Ala
35 40 45

Ser Tyr Tyr Gly Tyr Gly Tyr Trp Phe Leu Glu Gly Ala Asp Val Pro
50 55 60

Val Ala Thr Asn Asp Pro Asp Glu Glu Val Gln Glu Glu Thr Arg Gly
65 70 75 80

Arg Phe His Leu Leu Trp Asp Pro Arg Arg Lys Asn Cys Ser Leu Ser
85 90 95

Ile Arg Asp Ala Arg Arg Arg Asp Asn Ala Ala Tyr Phe Phe Arg Leu
100 105 110

Lys Ser Lys Trp Met Lys Tyr Gly Tyr Thr Ser Ser Lys Ile Tyr Val
115 120 125

Arg Val Met Ala Leu Thr His Arg Pro Asn Ile Ser Ile Pro Gly Pro
130 135 140

Gly Val Trp Pro Ser Ser Asn Leu Thr Cys Ser Val Pro Trp Val Cys
145 150 155 160

Glu Gln Gly Thr Pro Pro Ile Phe Ser Trp Met Ser Ala Ala Pro His
165 170 175

Leu Leu Gly Pro Arg Thr Thr Gln Ser Ser Val Leu Thr Ile Thr Pro
180 185 190

Ala Gln Asp His Ser Thr Asn Leu Thr Cys Gln Val Thr Phe Pro Gly
195 200 205

Ala Gly Val Thr Met Glu Arg Thr Ile Gln Leu Asn Val Ser Tyr Ala
210 215 220

Pro Gln Lys Val Ala Ile Ser Ile Phe Gln Gly Asn Ser Ala Ala Phe

225		230		235		240									
Lys	Ile	Leu	Gln	Asn	Thr	Ser	Ser	Leu	Pro	Val	Leu	Glu	Gly	Gln	Ala
			245						250					255	
Leu	Arg	Leu	Leu	Cys	Asp	Ala	Asp	Gly	Asn	Pro	Pro	Ala	His	Leu	Ser
		260						265					270		
Trp	Phe	Gln	Gly	Phe	Pro	Ala	Leu	Asn	Ala	Thr	Pro	Ile	Ser	Asn	Thr
		275						280					285		
Gly	Val	Leu	Glu	Leu	Pro	Gln	Val	Gly	Ser	Ala	Glu	Glu	Gly	Asp	Phe
		290					295					300			
Thr	Cys	Arg	Ala	Gln	His	Pro	Leu	Gly	Ser	Leu	Gln	Ile	Ser	Leu	Ser
305					310					315					320
Leu	Phe	Val	His	Trp	Lys	Pro	Glu	Gly	Arg	Ala	Gly	Gly	Val	Leu	Gly
			325						330						335
Ala	Val	Trp	Gly	Ala	Ser	Ile	Thr	Thr	Leu	Val	Phe	Leu	Cys	Val	Cys
		340						345					350		
Phe	Ile	Phe	Arg	Val	Lys	Thr	Arg	Arg	Lys	Lys	Ala	Ala	Gln	Pro	Val
		355					360					365			
Gln	Asn	Thr	Asp	Asp	Val	Asn	Pro	Val	Met	Val	Ser	Gly	Ser	Arg	Gly
		370					375					380			
His	Gln	His	Gln	Phe	Gln	Thr	Gly	Ile	Val	Ser	Asp	His	Pro	Ala	Glu
385					390					395					400
Ala	Gly	Pro	Ile	Ser	Glu	Asp	Glu	Gln	Glu	Leu	His	Tyr	Ala	Val	Leu
			405						410					415	
His	Phe	His	Lys	Val	Gln	Pro	Gln	Glu	Pro	Lys	Val	Thr	Asp	Thr	Glu
			420						425				430		
Tyr	Ser	Glu	Ile	Lys	Ile	His	Lys								
		435					440								

<210> 139

<211> 463

<212> PRT

<213> Homo sapiens

<400> 139

Met	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Trp	Gly	Arg	Glu	Arg	Ala	Glu	1	5	10	15
Gly	Gln	Thr	Ser	Lys	Leu	Leu	Thr	Met	Gln	Ser	Ser	Val	Thr	Val	Gln	20	25	30	
Glu	Gly	Leu	Cys	Val	His	Val	Pro	Cys	Ser	Phe	Ser	Tyr	Pro	Ser	His	35	40	45	
Gly	Trp	Ile	Tyr	Pro	Gly	Pro	Val	Val	His	Gly	Tyr	Trp	Phe	Arg	Glu	50	55	60	
Gly	Ala	Asn	Thr	Asp	Gln	Asp	Ala	Pro	Val	Ala	Thr	Asn	Asn	Pro	Ala	65	70	75	80
Arg	Ala	Val	Trp	Glu	Glu	Thr	Arg	Asp	Arg	Phe	His	Leu	Leu	Gly	Asp	85	90	95	
Pro	His	Thr	Glu	Asn	Cys	Thr	Leu	Ser	Ile	Arg	Asp	Ala	Arg	Arg	Ser	100	105	110	
Asp	Ala	Gly	Arg	Tyr	Phe	Phe	Arg	Met	Glu	Lys	Gly	Ser	Ile	Lys	Trp	115	120	125	
Asn	Tyr	Lys	His	His	Arg	Leu	Ser	Val	Asn	Val	Thr	Ala	Leu	Thr	His	130	135	140	
Arg	Pro	Asn	Ile	Leu	Ile	Pro	Gly	Thr	Leu	Glu	Ser	Gly	Cys	Pro	Gln	145	150	155	160
Asn	Leu	Thr	Cys	Ser	Val	Pro	Trp	Ala	Cys	Glu	Gln	Gly	Thr	Pro	Pro	165	170	175	
Met	Ile	Ser	Trp	Ile	Gly	Thr	Ser	Val	Ser	Pro	Leu	Asp	Pro	Ser	Thr	180	185	190	
Thr	Arg	Ser	Ser	Val	Leu	Thr	Leu	Ile	Pro	Gln	Pro	Gln	Asp	His	Gly	195	200	205	
Thr	Ser	Leu	Thr	Cys	Gln	Val	Thr	Phe	Pro	Gly	Ala	Ser	Val	Thr	Thr	210	215	220	
Asn	Lys	Thr	Val	His	Leu	Asn	Val	Ser	Tyr	Pro	Pro	Gln	Asn	Leu	Thr	225	230	235	240
Met	Thr	Val	Phe	Gln	Gly	Asp	Gly	Thr	Val	Ser	Thr	Val	Leu	Gly	Asn	245	250	255	

Gly Ser Ser Leu Ser Leu Pro Glu Gly Gln Ser Leu Arg Leu Val Cys
 260 265 270

Ala Val Asp Ala Val Asp Ser Asn Pro Pro Ala Arg Leu Ser Leu Ser
 275 280 285

Trp Arg Gly Leu Thr Leu Cys Pro Ser Gln Pro Ser Asn Pro Gly Val
 290 295 300

Leu Glu Leu Pro Trp Val His Leu Arg Asp Glu Ala Glu Phe Thr Cys
 305 310 315 320

Arg Ala Gln Asn Pro Leu Gly Ser Gln Gln Val Tyr Leu Asn Val Ser
 325 330 335

Leu Gln Ser Lys Ala Thr Ser Gly Val Thr Gln Gly Val Val Gly Gly
 340 345 350

Ala Gly Ala Thr Ala Leu Val Phe Leu Ser Phe Cys Val Ile Phe Val
 355 360 365

Val Val Arg Ser Cys Arg Lys Lys Ser Ala Arg Pro Ala Ala Gly Val
 370 375 380

Gly Asp Thr Gly Ile Glu Asp Ala Asn Ala Val Arg Gly Ser Ala Ser
 385 390 395 400

Gln Gly Pro Leu Thr Glu Pro Trp Ala Glu Asp Ser Pro Pro Asp Gln
 405 410 415

Pro Pro Pro Ala Ser Ala Arg Ser Ser Val Gly Glu Gly Glu Leu Gln
 420 425 430

Tyr Ala Ser Leu Ser Phe Gln Met Val Lys Pro Trp Asp Ser Arg Gly
 435 440 445

Gln Glu Ala Thr Asp Thr Glu Tyr Ser Glu Ile Lys Ile His Arg
 450 455 460

<210> 140

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Immunoglobulin domain sequence

<400> 140

Ser Val Ser Gly Phe Gly Pro Pro Pro Val Thr Trp Leu Arg Asn Gly
1 5 10 15

Lys Leu Ser Leu Thr Ile Ser Val Thr Pro Glu Asp Ser Gly Gly Thr
20 25 30

Tyr Thr

<210> 141

<211> 290

<212> PRT

<213> Homo sapiens

<400> 141

Ala His Thr Glu Tyr Pro Val Asn Thr Ile Ile Ile His Glu Asp Phe
1 5 10 15

Asp Asn Asn Ser Met Ser Asn Asn Ile Ala Leu Leu Lys Thr Asp Thr
20 25 30

Ala Met His Phe Gly Asn Leu Val Gln Ser Ile Cys Phe Leu Gly Arg
35 40 45

Met Leu His Thr Pro Pro Val Leu Gln Asn Cys Trp Val Ser Gly Trp
50 55 60

Asn Pro Thr Ser Ala Thr Gly Asn His Met Thr Met Ser Val Leu Arg
65 70 75 80

Lys Ile Phe Val Lys Asp Leu Asp Met Cys Pro Leu Tyr Lys Leu Gln
85 90 95

Lys Thr Glu Cys Gly Ser His Thr Lys Glu Glu Thr Lys Thr Ala Cys
100 105 110

Leu Gly Asp Pro Gly Ser Pro Met Met Cys Gln Leu Gln Gln Phe Asp
115 120 125

Leu Trp Val Leu Arg Gly Ile Leu Asn Phe Gly Gly Glu Thr Cys Pro
130 135 140

Gly Leu Phe Leu Tyr Thr Lys Val Glu Asp Tyr Ser Lys Trp Ile Thr
145 150 155 160

Ser Lys Ala Glu Arg Ala Gly Pro Pro Leu Ser Ser Leu His His Trp
 165 170 175
 Glu Lys Leu Ile Ser Phe Ser His His Gly Pro Asn Ala Ala Met Thr
 180 185 190
 Gln Lys Thr Tyr Ser Asp Ser Glu Leu Gly His Val Gly Ser Tyr Leu
 195 200 205
 Gln Gly Gln Arg Arg Thr Ile Thr His Ser Arg Leu Gly Asn Ser Ser
 210 215 220
 Arg Asp Ser Leu Asp Val Arg Glu Lys Asp Val Lys Glu Ser Gly Arg
 225 230 235 240
 Ser Pro Glu Ala Ser Val Gln Pro Leu Tyr Tyr Asp Tyr Tyr Gly Gly
 245 250 255
 Glu Val Gly Glu Gly Arg Ile Phe Ala Gly Gln Asn Arg Leu Tyr Gln
 260 265 270
 Pro Glu Glu Ile Ile Leu Val Ser Phe Val Leu Val Phe Phe Cys Ser
 275 280 285
 Ser Ile
 290

<210> 142
 <211> 270
 <212> PRT
 <213> Homo sapiens

<400> 142

Met Ser Asn Asn Ile Ala Leu Leu Lys Thr Asp Thr Ala Met His Phe
 1 5 10 15
 Gly Asn Leu Val Gln Ser Ile Cys Phe Leu Gly Arg Met Leu His Thr
 20 25 30
 Pro Pro Val Leu Gln Asn Cys Trp Val Ser Gly Trp Asn Pro Thr Ser
 35 40 45
 Ala Thr Gly Asn His Met Thr Met Ser Val Leu Arg Lys Ile Phe Val
 50 55 60
 Lys Asp Leu Asp Met Cys Pro Leu Tyr Lys Leu Gln Lys Thr Glu Cys
 65 70 75 80

Gly Ser His Thr Lys Glu Glu Thr Lys Thr Ala Cys Leu Gly Asp Pro
85 90 95

Gly Ser Pro Met Met Cys Gln Leu Gln Gln Phe Asp Leu Trp Val Leu
100 105 110

Arg Gly Val Leu Asn Phe Gly Gly Glu Thr Cys Pro Gly Leu Phe Leu
115 120 125

Tyr Thr Lys Val Glu Asp Tyr Ser Lys Trp Ile Thr Ser Lys Ala Glu
130 135 140

Arg Ala Gly Pro Pro Leu Ser Ser Leu His His Trp Glu Lys Leu Ile
145 150 155 160

Ser Phe Ser His His Gly Pro Asn Ala Thr Met Thr Gln Lys Thr Tyr
165 170 175

Ser Asp Ser Glu Leu Gly His Val Gly Ser Tyr Leu Gln Gly Gln Arg
180 185 190

Arg Thr Ile Thr His Ser Arg Leu Gly Asn Ser Ser Arg Asp Ser Leu
195 200 205

Asp Val Arg Glu Lys Asp Val Lys Glu Ser Gly Arg Ser Pro Glu Ala
210 215 220

Ser Val Gln Pro Leu Tyr Tyr Asp Tyr Tyr Gly Gly Glu Val Gly Glu
225 230 235 240

Gly Arg Ile Phe Ala Gly Gln Asn Arg Leu Tyr Gln Pro Glu Glu Ile
245 250 255

Ile Leu Val Ser Phe Val Leu Val Phe Phe Cys Ser Ser Ile
260 265 270

<210> 143

<211> 624

<212> PRT

<213> Mus musculus

<400> 143

Met Thr Ser Leu His Gln Val Leu Tyr Phe Ile Phe Phe Ala Ser Val
1 5 10 15

Ser Ser Glu Cys Val Thr Lys Val Phe Lys Asp Ile Ser Phe Gln Gly

20	25	30
Gly Asp Leu Ser Thr Val Phe Thr Pro Ser Ala Thr Tyr Cys Arg Leu		
35	40	45
Val Cys Thr His His Pro Arg Cys Leu Leu Phe Thr Phe Met Ala Glu		
50	55	60
Ser Ser Ser Asp Asp Pro Thr Lys Trp Phe Ala Cys Ile Leu Lys Asp		
65	70	75
Ser Val Thr Glu Ile Leu Pro Met Val Asn Met Thr Gly Ala Ile Ser		
85	90	95
Gly Tyr Ser Phe Lys Gln Cys Pro Gln Gln Leu Ser Thr Cys Ser Lys		
100	105	110
Asp Val Tyr Val Asn Leu Asp Met Lys Gly Met Asn Tyr Asn Ser Ser		
115	120	125
Val Val Lys Asn Ala Arg Glu Cys Gln Glu Arg Cys Thr Asp Asp Ala		
130	135	140
His Cys Gln Phe Phe Thr Tyr Ala Thr Gly Tyr Phe Pro Ser Val Asp		
145	150	155
His Arg Lys Met Cys Leu Leu Lys Tyr Thr Arg Thr Gly Thr Pro Thr		
165	170	175
Thr Ile Thr Lys Leu Asn Gly Val Val Ser Gly Phe Ser Leu Lys Ser		
180	185	190
Cys Gly Leu Ser Asn Leu Ala Cys Ile Arg Asp Ile Phe Pro Asn Thr		
195	200	205
Val Leu Ala Asp Leu Asn Ile Asp Ser Val Val Ala Pro Asp Ala Phe		
210	215	220
Val Cys Arg Arg Ile Cys Thr His His Pro Thr Cys Leu Phe Phe Thr		
225	230	235
Phe Phe Ser Gln Ala Trp Pro Lys Glu Ser Gln Arg His Leu Cys Leu		
245	250	255
Leu Lys Thr Ser Glu Ser Gly Leu Pro Ser Thr Arg Ile Thr Lys Ser		
260	265	270
His Ala Leu Ser Gly Phe Ser Leu Gln His Cys Arg His Ser Val Pro		

275	280	285
Val Phe Cys His Pro Ser Phe Tyr Asn Asp Thr Asp Phe Leu Gly Glu		
290	295	300
Glu Leu Asp Ile Val Asp Val Lys Gly Gln Glu Thr Cys Gln Lys Thr		
305	310	315
Cys Thr Asn Asn Ala Arg Cys Gln Phe Phe Thr Tyr Tyr Pro Ser His		
	325	330
Arg Leu Cys Asn Glu Arg Asn Arg Arg Gly Arg Cys Tyr Leu Lys Leu		
	340	345
Ser Ser Asn Gly Ser Pro Thr Arg Ile Leu His Gly Arg Gly Gly Ile		
	355	360
Ser Gly Tyr Ser Leu Arg Leu Cys Lys Met Asp Asn Val Cys Thr Thr		
	370	375
Lys Ile Asn Pro Arg Val Val Gly Gly Ala Ala Ser Val His Gly Glu		
385	390	395
Trp Pro Trp Gln Val Thr Leu His Ile Ser Gln Gly His Leu Cys Gly		
	405	410
Gly Ser Ile Ile Gly Asn Gln Trp Ile Leu Thr Ala Ala His Cys Phe		
	420	425
Ser Gly Ile Glu Thr Pro Lys Lys Leu Arg Val Tyr Gly Gly Ile Val		
	435	440
Asn Gln Ser Glu Ile Asn Glu Gly Thr Ala Phe Phe Arg Val Gln Glu		
	450	455
Met Ile Ile His Asp Gln Tyr Thr Thr Ala Glu Ser Gly Tyr Asp Ile		
465	470	475
Ala Leu Leu Lys Leu Glu Ser Ala Met Asn Tyr Thr Asp Phe Gln Arg		
	485	490
Pro Ile Cys Leu Pro Ser Lys Gly Asp Arg Asn Ala Val His Thr Glu		
	500	505
Cys Trp Val Thr Gly Trp Gly Tyr Thr Ala Leu Arg Gly Glu Val Gln		
	515	520
Ser Thr Leu Gln Lys Ala Lys Val Pro Leu Val Ser Asn Glu Glu Cys		

530	535	540
Gln Thr Arg Tyr Arg Arg His Lys Ile Thr Asn Lys Met Ile Cys Ala		
545	550	555 560
Gly Tyr Lys Glu Gly Gly Lys Asp Thr Cys Lys Gly Asp Ser Gly Gly		
	565	570 575
Pro Leu Ser Cys Lys Tyr Asn Gly Val Trp His Leu Val Gly Ile Thr		
	580	585 590
Ser Trp Gly Glu Gly Cys Gly Gln Lys Glu Arg Pro Gly Val Tyr Thr		
	595	600 605
Asn Val Ala Lys Tyr Val Asp Trp Ile Leu Glu Lys Thr Gln Thr Val		
610	615	620

<210> 144
 <211> 326
 <212> PRT
 <213> Mus musculus

<400> 144
Met Cys Arg Gln Pro Met Lys Arg Trp Lys Asp Arg Arg Thr Gly Leu
1 5 10 15
Leu Leu Pro Leu Val Leu Leu Leu Phe Gly Ala Cys Ser Ser Leu Ala
20 25 30
Trp Val Cys Gly Arg Arg Met Ser Ser Arg Ser Gln Gln Leu Asn Asn
35 40 45
Ala Ser Ala Ile Val Glu Gly Lys Pro Ala Ser Ala Ile Val Gly Gly
50 55 60
Lys Pro Ala Asn Ile Leu Glu Phe Pro Trp His Val Gly Ile Met Asn
65 70 75 80
His Gly Ser His Leu Cys Gly Gly Ser Ile Leu Asn Glu Trp Trp Val
85 90 95
Leu Ser Ala Ser His Cys Phe Asp Gln Leu Asn Asn Ser Lys Leu Glu
100 105 110

Ile	Ile	His	Gly	Thr	Glu	Asp	Leu	Ser	Thr	Lys	Gly	Ile	Lys	Tyr	Gln	115	120	125	
Lys	Val	Asp	Lys	Leu	Phe	Leu	His	Pro	Lys	Phe	Asp	Asp	Trp	Leu	Leu	130	135	140	
Asp	Asn	Asp	Ile	Ala	Leu	Leu	Leu	Leu	Lys	Ser	Pro	Leu	Asn	Leu	Ser	145	150	155	160
Val	Asn	Arg	Ile	Pro	Ile	Cys	Thr	Ser	Glu	Ile	Ser	Asp	Ile	Gln	Ala	165	170	175	
Trp	Arg	Asn	Cys	Trp	Val	Thr	Gly	Trp	Gly	Ile	Thr	Asn	Thr	Ser	Glu	180	185	190	
Lys	Gly	Val	Gln	Pro	Thr	Ile	Leu	Gln	Ala	Val	Lys	Val	Asp	Leu	Tyr	195	200	205	
Arg	Trp	Asp	Trp	Cys	Gly	Tyr	Ile	Leu	Ser	Leu	Leu	Thr	Lys	Asn	Met	210	215	220	
Leu	Cys	Ala	Gly	Thr	Gln	Asp	Pro	Gly	Lys	Asp	Ala	Cys	Gln	Gly	Asp	225	230	235	240
Ser	Gly	Gly	Ala	Leu	Val	Cys	Asn	Lys	Lys	Arg	Asn	Thr	Ala	Ile	Trp	245	250	255	
Tyr	Gln	Val	Gly	Ile	Val	Ser	Trp	Gly	Met	Gly	Cys	Gly	Lys	Lys	Asn	260	265	270	
Leu	Pro	Gly	Val	Tyr	Thr	Lys	Val	Ser	His	Tyr	Val	Arg	Trp	Ile	Ser	275	280	285	
Lys	Gln	Thr	Ala	Lys	Ala	Gly	Arg	Pro	Tyr	Met	Tyr	Glu	Gln	Asn	Ser	290	295	300	
Ala	Cys	Pro	Leu	Val	Leu	Ser	Cys	Arg	Ala	Ile	Leu	Phe	Leu	Tyr	Phe	305	310	315	320
Val	Met	Phe	Leu	Leu	Thr											325			

<210> 145

<211> 624

<212> PRT

<213> Mus musculus

<400> 145

Met Thr Ser Leu His Gln Val Leu Tyr Phe Ile Phe Phe Ala Ser Val
1 5 10 15

Ser Ser Glu Cys Val Thr Lys Val Phe Lys Asp Ile Ser Phe Gln Gly
20 25 30

Gly Asp Leu Ser Thr Val Phe Thr Pro Ser Ala Thr Tyr Cys Arg Leu
35 40 45

Val Cys Thr His His Pro Arg Cys Leu Leu Phe Thr Phe Met Ala Glu
50 55 60

Ser Ser Ser Asp Asp Pro Thr Lys Trp Phe Ala Cys Ile Leu Lys Asp
65 70 75 80

Ser Val Thr Glu Ile Leu Pro Met Val Asn Met Thr Gly Ala Ile Ser
85 90 95

Gly Tyr Ser Phe Lys Gln Cys Pro Gln Gln Leu Ser Thr Cys Ser Lys
100 105 110

Asp Glu Tyr Val Asn Leu Asp Met Lys Gly Met Asn Tyr Asn Ser Ser
115 120 125

Val Val Lys Asn Ala Arg Glu Cys Gln Glu Arg Cys Thr Asp Asp Ala
130 135 140

His Cys Gln Phe Phe Thr Tyr Ala Thr Gly Tyr Phe Pro Ser Val Asp
145 150 155 160

His Arg Lys Met Cys Leu Leu Lys Tyr Thr Arg Thr Gly Thr Pro Thr
165 170 175

Thr Ile Thr Lys Leu Asn Gly Val Val Ser Gly Phe Ser Leu Lys Ser
180 185 190

Cys Gly Leu Ser Asn Leu Ala Cys Ile Arg Asp Ile Phe Pro Asn Thr
195 200 205

Val Leu Ala Asp Leu Asn Ile Asp Ser Val Val Ala Pro Asp Ala Phe
210 215 220

Val Cys Arg Arg Ile Cys Thr His His Pro Thr Cys Leu Phe Phe Thr
225 230 235 240

Phe Phe Ser Gln Ala Trp Pro Lys Glu Ser Gln Arg His Leu Cys Leu
245 250 255

Leu Lys Thr Ser Glu Ser Gly Leu Pro Ser Thr Arg Ile Thr Lys Ile
 260 265 270
 His Ala Leu Ser Gly Phe Ser Leu Gln His Cys Arg His Ser Val Pro
 275 280 285
 Val Phe Cys His Pro Ser Phe Tyr Asn Asp Thr Asp Phe Leu Gly Glu
 290 295 300
 Glu Leu Asp Ile Val Asp Val Lys Gly Gln Glu Thr Cys Gln Lys Thr
 305 310 315 320
 Cys Thr Asn Asn Ala Arg Cys Gln Phe Phe Thr Tyr Tyr Pro Ser His
 325 330 335
 Arg Leu Cys Asn Glu Arg Asn Arg Arg Gly Arg Cys Tyr Leu Lys Leu
 340 345 350
 Ser Ser Asn Gly Ser Pro Thr Arg Ile Leu His Gly Arg Gly Gly Leu
 355 360 365
 Ser Gly Tyr Ser Leu Arg Leu Cys Lys Met Asp Asn Val Cys Thr Thr
 370 375 380
 Lys Ile Asn Pro Arg Val Val Gly Gly Ala Ala Ser Val His Gly Glu
 385 390 395 400
 Trp Pro Trp Gln Val Thr Leu His Ile Ser Gln Gly His Leu Cys Gly
 405 410 415
 Gly Ser Ile Ile Gly Asn Gln Trp Ile Leu Thr Ala Ala His Cys Phe
 420 425 430
 Ser Gly Ile Glu Thr Pro Lys Lys Leu Arg Val Tyr Gly Gly Ile Val
 435 440 445
 Asn Gln Ser Glu Ile Asn Glu Gly Thr Ala Phe Phe Arg Glu Gln Glu
 450 455 460
 Met Ile Ile His Asp Gln Tyr Thr Thr Ala Glu Ser Gly Tyr Asp Ile
 465 470 475 480
 Ala Leu Leu Lys Leu Glu Ser Ala Met Asn Tyr Thr Asp Phe Gln Arg
 485 490 495
 Pro Ile Cys Leu Pro Ser Lys Gly Asp Arg Asn Ala Val His Thr Glu
 500 505 510

Cys Trp Val Thr Gly Trp Gly Tyr Thr Ala Leu Arg Gly Glu Val Gln
515 520 525

Ser Thr Leu Gln Lys Ala Lys Val Pro Leu Val Ser Asn Glu Glu Cys
530 535 540

Gln Thr Arg Tyr Arg Arg His Lys Ile Thr Asn Lys Met Ile Cys Ala
545 550 555 560

Gly Tyr Lys Glu Gly Gly Lys Asp Thr Cys Lys Gly Asp Ser Gly Gly
565 570 575

Pro Leu Ser Cys Lys Tyr Asn Gly Val Trp His Leu Val Gly Ile Thr
580 585 590

Ser Trp Gly Glu Gly Cys Gly Gln Lys Glu Arg Pro Gly Val Tyr Thr
595 600 605

Asn Val Ala Lys Tyr Val Asp Trp Ile Leu Glu Lys Thr Gln Thr Val
610 615 620

<210> 146

<211> 213

<212> PRT

<213> Homo sapiens

<400> 146

Glu Phe Pro Trp Val Val Ser Leu Gln Asp Ser Gln Tyr Thr His Leu
1 5 10 15

Ala Phe Gly Cys Ile Leu Ser Glu Phe Trp Val Leu Ser Ile Ala Ser
20 25 30

Ala Ile Gln Asn Arg Lys Asp Ile Val Val Ile Val Gly Ile Ser Asn
35 40 45

Met Asp Pro Ser Lys Ile Ala His Thr Glu Tyr Pro Val Asn Thr Ile
50 55 60

Ile Ile His Glu Asp Phe Asp Asn Asn Ser Met Ser Asn Asn Ile Ala
65 70 75 80

Leu Leu Lys Thr Asp Thr Ala Met His Phe Gly Asn Leu Val Gln Ser

	85		90		95
Ile Cys Phe Leu Gly Arg Met Leu His Thr Pro Pro Val Leu Gln Asn					
	100		105		110
Cys Trp Val Ser Gly Trp Asn Pro Thr Ser Ala Thr Gly Asn His Met					
	115		120		125
Thr Met Ser Val Leu Arg Lys Ile Phe Val Lys Asp Leu Asp Met Cys					
	130		135		140
Pro Leu Tyr Lys Leu Gln Lys Thr Glu Cys Gly Ser His Thr Lys Glu					
	145		150		155
Glu Thr Lys Thr Ala Cys Leu Gly Asp Pro Gly Ser Pro Met Met Cys					
	165		170		175
Gln Leu Gln Gln Phe Asp Leu Trp Val Leu Arg Gly Ile Leu Asn Phe					
	180		185		190
Gly Gly Glu Thr Cys Pro Gly Leu Phe Leu Tyr Thr Lys Val Glu Asp					
	195		200		205
Tyr Ser Lys Trp Ile					
	210				

<210> 147

<211> 207

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Trypsin domain
sequence

<400> 147

Ser Phe Pro Trp Gln Val Ser Leu Gln Val Ser Ser Gly His Phe Cys					
1		5		10	15
Gly Gly Ser Leu Ile Ser Glu Asn Trp Val Leu Thr Ala Ala His Cys					
	20		25		30
Val Ser Gly Ala Ser Ser Val Arg Val Val Leu Gly Glu His Asn Leu					
	35		40		45
Gly Thr Thr Glu Gly Thr Glu Gln Lys Phe Asp Val Lys Lys Ile Ile					
	50		55		60

Val	His	Pro	Asn	Tyr	Asn	Pro	Asp	Thr	Asn	Asp	Ile	Ala	Leu	Leu	Lys	65	70	75	80
Leu	Lys	Ser	Pro	Val	Thr	Leu	Gly	Asp	Thr	Val	Arg	Pro	Ile	Cys	Leu	85	90	95	
Pro	Ser	Ala	Ser	Ser	Asp	Leu	Pro	Val	Gly	Thr	Thr	Cys	Ser	Val	Ser	100	105	110	
Gly	Trp	Gly	Arg	Thr	Lys	Asn	Leu	Gly	Thr	Ser	Asp	Thr	Leu	Gln	Glu	115	120	125	
Val	Val	Val	Pro	Ile	Val	Ser	Arg	Glu	Thr	Cys	Arg	Ser	Ala	Tyr	Gly	130	135	140	
Gly	Thr	Val	Thr	Asp	Thr	Met	Ile	Cys	Ala	Gly	Ala	Leu	Gly	Gly	Lys	145	150	155	160
Asp	Ala	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Ser	Asp	Gly	165	170	175	
Glu	Leu	Val	Gly	Ile	Val	Ser	Trp	Gly	Tyr	Gly	Cys	Ala	Val	Gly	Asn	180	185	190	
Tyr	Pro	Gly	Val	Tyr	Thr	Arg	Val	Ser	Arg	Tyr	Leu	Asp	Trp	Ile		195	200	205	

<210> 148
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 sequence

<400> 148
 gatccttgga aacaaccaga tc

22

<210> 149
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 149

cttctgtgcc accgtggagg acct

24

<210> 150

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 150

ctccaggttg ttgtaggaca ga

22

<210> 151

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 151

tttgcagtg c aacacagata tc

22

<210> 152

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 152

ttacggtcta cacaaaagct ttccca

26

<210> 153

<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 153
gcttcctgaa ggttttgttg a 21

<210> 154
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 154
ggtttgtgct gcttctaaca tc 22

<210> 155
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 155
acaccagcgg tgctcctctt caat 24

<210> 156
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 156
cattgagcat cttacggttt gt 22

<210> 157
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 157
ctgggcatcc agaagatctt 20

<210> 158
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 158
ctctgcaagt acagcggcta cctgg 25

<210> 159
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 159
cctcgtcatt cagttccagt ac 22

<210> 160
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer

sequence

<400> 160
ggtgccaata cgaagctctt a 21

<210> 161
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 161
agttcgtcag cttccccacc cag 23

<210> 162
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 162
catgacaggg atcaccttag ag 22

<210> 163
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 163
gagaactgtc cagctcaatg tc 22

<210> 164
<211> 26
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 164

ctccacagac catcaccatc ttcagg

26

<210> 165

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 165

tatgaggtgt tttgcaggat ct

22

<210> 166

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 166

agcaagattg ctcacacaga gt

22

<210> 167

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 167

ccagtcaata ccatcatcat ccatgagg

28

<210> 168
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 168
tatgttggtg ctcatggagt tg 22

<210> 169
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 169
tggcttattc agaagagcat aaagg 25

<210> 170
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 170
agtgactaga gatcctccag gtcagtt 27

<210> 171
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 171
tggcttattc agaagagcat aaagg 25

<210> 172
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 172
agtgactaga gatcctccag gtcagtt 27

<210> 173
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 173
cgcgtagacct tgcccctctt g 21

<210> 174
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 174
cgtcatacctg agcccgtagc tc 22

<210> 175
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 175
gtttcgggcc ctgtgcgg

18

<210> 176
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 176
gtggtgccca tttgttttcc tcagagt

27

<210> 177
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 177
ggtcatggaa gaacgggaag aggt

24

<210> 178
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 178
ctggggaggg tcaaagaagg agct

24

<210> 179
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 179
ctccactcc tgctgcttct gact 24

<210> 180
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 180
aaggctgggc ctaaccagc ctcac 25

<210> 181
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 181
gtccctgcag gagaagccag tgtac 25

<210> 182
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 182
ctgggcaaat cctcacttgc ttgtct 26

<210> 183
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 183
cctctttacc acacagaacc aagcact 27

<210> 184
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
sequence

<400> 184
agccccagtg tgcaactatc aaaaac 26

<210> 185
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SAGE library
tag sequence

<400> 185
agcctgttgc 10

<210> 186
<211> 79
<212> PRT
<213> Homo sapiens

<400> 186

Cys Tyr His Gly Asn Gly Glu Asn Tyr Arg Gly Thr Ala Ser Thr Thr
1 5 10 15

Glu Ser Gly Ala Pro Cys Gln Arg Trp Asp Ser Gln Thr Pro His Arg
20 25 30

His Ser Lys Tyr Thr Pro Glu Arg Tyr Pro Ala Lys Gly Leu Gly Glu
35 40 45

Asn Tyr Cys Arg Asn Pro Asp Gly Asp Glu Arg Pro Trp Cys Tyr Thr
50 55 60

Thr Asp Pro Arg Val Arg Trp Glu Tyr Cys Asp Ile Pro Arg Cys
65 70 75

<210> 187

<211> 81

<212> PRT

<213> Homo sapiens

<400> 187

Cys Tyr Ala Gly Asn Gly Glu Ser Tyr Arg Gly Thr Ala Ser Thr Thr
1 5 10 15

Lys Ser Gly Lys Pro Cys Gln Arg Trp Asp Ser Gln Thr Pro His Leu
20 25 30

His Arg Phe Thr Pro Glu Arg Phe Pro Glu Leu Gly Leu Glu His Asn
35 40 45

Tyr Cys Arg Asn Pro Asp Gly Asp Ser Glu Gly Pro Trp Cys Tyr Thr
50 55 60

Thr Asp Pro Asn Val Arg Trp Glu Tyr Cys Asp Ile Pro Gln Cys Glu
65 70 75 80

Ser

<210> 188

<211> 81

<212> PRT

<213> Homo sapiens

<400> 188

Arg Asp Cys Tyr Ala Gly Asn Gly Glu Ser Tyr Arg Gly Thr Ala Ser
 1 5 10 15
 Thr Thr Lys Ser Gly Lys Pro Cys Gln Arg Trp Asp Ser Gln Thr Pro
 20 25 30
 His Leu His Arg Phe Thr Pro Glu Arg Phe Pro Glu Leu Gly Leu Glu
 35 40 45
 His Asn Tyr Cys Arg Asn Pro Asp Gly Asp Ser Glu Gly Pro Trp Cys
 50 55 60
 Tyr Thr Thr Asp Pro Asn Val Arg Trp Glu Tyr Cys Asp Ile Pro Gln
 65 70 75 80

Cys

<210> 189
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 189
 Cys Phe Val Arg Leu Pro Asn Thr Lys Leu Pro Asp Phe Ser Pro Ile
 1 5 10 15
 Val Ile Ser Val Ala Ser Leu Glu Glu Cys Ala Gln Lys Cys Leu Asn
 20 25 30
 Ser Asn Cys Ser Cys Arg Ser Phe Thr Tyr Asn Asn Asp Thr Lys Gly
 35 40 45
 Cys Leu Leu Trp Ser Glu Ser Ser Leu Gly Asp Ala Arg Gln Leu Leu
 50 55 60
 Pro Ser Gly Gly Val Asp Tyr Tyr Glu Lys Ile
 65 70 75

<210> 190
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 190
 Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr Leu

1	5	10	15												
Thr	Ala	Thr	Leu	Ile	Ser	Ile	Gly	Val	Ser	Met	Phe	Leu	Leu	Ser	Ser
			20					25					30		
Gly	Pro	Glu	Pro	Arg	Ser	Ser	Pro	Ala	Thr	Thr	Leu	Ser	Gly	Leu	Ile
		35						40				45			
Leu	Leu	Ala	Gly	Tyr	Ile	Ala	Phe	Asp	Ser	Phe	Thr	Ser	Asn	Trp	Gln
	50					55					60				
Asp	Ala	Leu	Phe	Ala	Tyr	Lys	Met	Ser	Ser	Val	Gln	Met	Met	Phe	Gly
65					70					75					80
Val	Asn	Phe	Phe	Ser	Cys	Leu	Phe	Thr	Val	Gly	Ser	Leu	Leu	Glu	Gln
				85					90					95	
Gly	Ala	Leu	Leu	Glu	Gly	Thr	Arg	Phe	Met	Gly	Arg	His	Ser	Glu	Phe
		100						105					110		
Ala	Ala	His	Ala	Leu	Leu	Leu	Ser	Ile	Cys	Ser	Ala	Cys	Gly	Gln	Leu
		115					120					125			
Phe	Ile	Phe	Tyr	Thr	Ile	Gly	Gln	Phe	Gly	Ala	Ala	Val	Phe	Thr	Ile
	130					135				140					
Ile	Met	Thr	Leu	Arg	Gln	Ala	Phe	Ala	Ile	Leu	Leu	Ser	Cys	Leu	Leu
145				150					155					160	
Tyr	Gly	His	Thr	Val	Thr	Val	Val	Gly	Gly	Leu	Gly	Val	Ala	Val	Val
			165					170					175		
Phe	Ala	Ala	Leu	Leu											
			180												

<210> 191

<211> 68

<212> PRT

<213> Homo sapiens

<400> 191

Trp	Tyr	Ser	Ser	Pro	Pro	Leu	Tyr	Val	Tyr	Trp	Phe	Arg	Asp	Gly	Glu
1				5					10					15	

Ile	Pro	Tyr	Tyr	Ala	Glu	Val	Val	Ala	Thr	Asn	Asn	Pro	Asp	Arg	Arg
		20						25					30		

Val Lys Pro Glu Thr Gln Gly Arg Phe Arg Leu Leu Gly Asp Val Gln
35 40 45

Lys Lys Asn Cys Ser Leu Ser Ile Gly Asp Ala Arg Met Glu Asp Thr
50 55 60

Gly Ser Tyr Phe
65